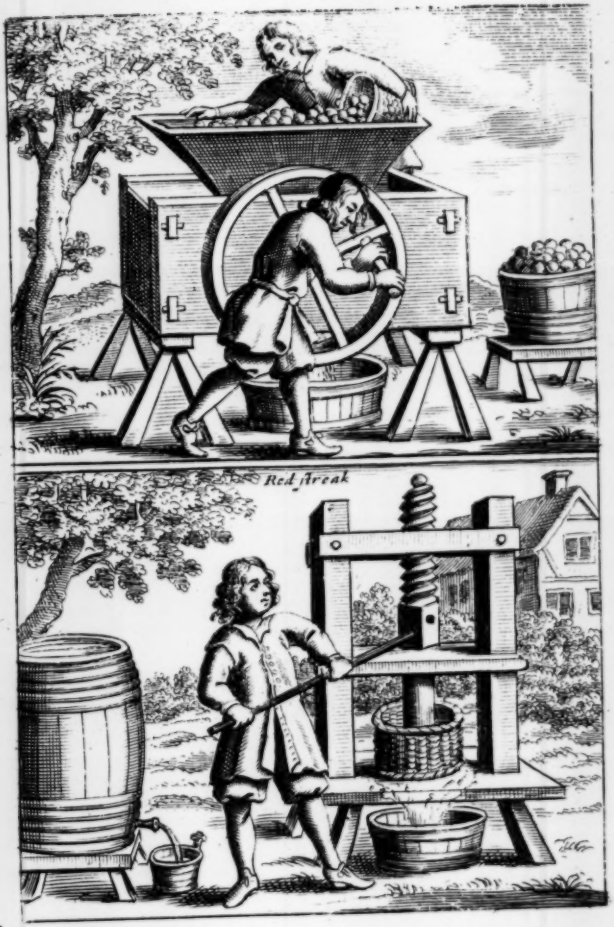
At a Meeting of the Council of the *Royal Society*, *Octob.* 21. 1675.

Ordered,

THAT a Book Intituled, *The Comparative Anatomy of TRUNKS, together with an account of their Vegetation grounded thereupon; In two parts: the former read before the* Royal Society February 25. 167⅘; *the latter* June 17. 1675. *the whole explicated by ſeveral Figures in Nineteen Copper-plates; Preſented to the* Royal Society *in the years* 1673. *and* 1674. *by Dr.* Nehemiah Grew; *be Printed by the aſſigns of* John Martyn *Printer to the* Royal Society *for* Walter Kettilby.

BROUNCKER P.R.S.


Red Streak

Vinetum Britannicum:

OR, A

TREATISE OF CIDER,

And such other Wines and Drinks that are extracted from all manner of Fruits Growing in this Kingdom.

Together with the Method of Propagating all sorts of Vinous FRUIT-TREES.

And a Description of the new-invented INGENIO or MILL,

For the more expeditious and better making of CIDER.

And also the right Method of making Metheglin and Birch-Wine.

With Copper-Plates.

By *J. W.* Gent.

LONDON: Printed By *J. C.* for *Tho. Dring*, over against the Inner-temple-gate; and *Tho. Burrel*, at the Golden-ball under St. *Dunstan's* Church in *Fleet-street.* 1676.

1388:16

THE PREFACE.

THE *principal deſigne of the enſuing Treatiſe, is the improvement and increaſe of the moſt excellent Liquor this Iſle of* Great Britain *affords; which hath of late years been brought into uſe, and very much admired by moſt, through the means and induſtry of many worthy perſons who have very much added to its reputation. Yet is it not become ſo general a Drink as probably it may be in time, becauſe the greater part of the people of* England *are not as yet convinced of the advantage that will ariſe by the propagation of the Trees that yield this noble Drink, nor acquainted with the right method of planting them: Neither do they underſtand the true and genuine way of extracting or preparing it. Which*

hath been the occasion that many have exclaim'd against it for a mean dull Drink.

Thus hath this Liquor been undervalued by the ignorant, which did prevent a long time many from undertaking its improvement. The Planters also have been discourag'd either by the difficulty of raising the Trees, as supposing them not to agree well with the Soil; or in preserving them, when raised, from Cattle, and other injuries; and the fruit from such casualties they are usually subject unto: many also being not as yet convinc'd of the salubrity and pleasantness of the Drink it self. Therefore is this small Tract adventuring into the world in a plain and homely dress, to endeavour a Conviction of the Country-man, not only of the feasibleness of the Raising, Propagating, and Planting of Apple-trees, *or other Fruit-trees, in most places or Soils in this Island, and that to a considerable improvement and advantage of their Farms or Livings small and great; but also of the times and seasons of gathering the Fruits, and the true and right method of Grinding, Pressing, or Extracting their Juices, and fermenting, preparing, and preserving the same when extracted, after the most genuine and best experimented ways that have been yet known, discovered*

diſcovered, or made uſe of. For this Li-
quor Cider *hath been improved even to per-*
fection, as many ingenious and worthy per-
ſons can teſtifie; and the Method thereof
may in time become practicable by the moſt
vulgar Capacities, from whom is expected
the more Univerſal advancement of this de-
ſigne; into whom it is not eaſie to infuſe
any thing that is Novel, although it be ne're
ſo feaſible, or to be deſir'd; as might be in-
ſtanced in ſeveral points of Agriculture,
that by degrees have been introduc'd, and
now become generally practiced, which by
them were once ſlighted and deſpiſed: there
being no argument ſo prevalent with them
as Profit; nor that to be talked of, unleſs de-
monſtrated by plain Experience, which in this
Tract I hope will be done to their ſatisfacti-
on. However, they need no better Argu-
ment to convince them of the profits that
ariſe from this part of Husbandry, than
that many places in Herefordſhire, Glouce-
ſterſhire, Worceſterſhire, *&c. are highly*
improved by this very Method; the Cider
there made being in great quantities annu-
ally carried to London, *and ſeveral other*
places of this Kingdom, and ſold at a very
high rate; and valued above the Wines of
France, *partly from the excellencie of it*

in it ſelf, and partly from the alteration for the worſe that French Wines ſuffer by their exportation, and from the ſophiſtications, and adulterations they receive from thoſe that trade in them; which by the ill effects of the latter, oppoſed to the vertues and pre-excellencie of the former, in all probability will ſo far encreaſe and promote the Reputation of Cider, *that it will not only continue the price and value of it, but rather enhanſe it, as the Planters and Ciderists grow more expert in planting the beſt Fruits, and preparing the Liquors after the beſt methods. For vain and frivolous is the Objection that is uſually made, That by much planting of theſe Fruits, the prices of them will be ſo low, that they will not quit the coſt. The ſame might have been made in* Herefordſhire, *and places adjacent, where theſe Trees in late years are wonderfully increaſed; yet in the ſame places, the Fruit as well as the Cider yields a greater price now than ever it did formerly, or than it doth in any place of* England (*diſtant from* London) *beſides: For within theſe three years* Redſtreak-Apples *have, in ſome part of that County, been ſold after the rate of five ſhillings the Buſhel, and the* Cider *made of that Fruit been ſold for eight pounds the*

Hogs-

Hogſhead. The ſame may be expected in other places, if Husbandmen would take care to plant the beſt Fruits, &c. *it being preſumed that* Cider *in a little time would wear out the Reputation of* French *Wines, and by degrees leſſen the expence of Malt; it being much to be preferr'd to the former, and found by experience to be more wholſome than the Drink made of the latter; and may in time be made at an eaſier rate than Ale or Beer, and yet be a great improvement, conſidering that an Acre of Land planted with Apple-trees, will by its Fruit yield more Liquor than two or three Acres of Barly can make; and that without the annual charge of Plowing, Sowing,* &c.

But the main Objection that may be made by the more ſober part of this Nation, is, That the increaſe of theſe intoxicating and inebriating Liquors, is an encouragement to the univerſal vice of Drunkenneſs. To which it may be anſwered, That that vice is not now ſo regnant in this Iſle, as it hath been in former Ages, and now is in other European *Nations, if Hiſtory may be credited. As in* Virgil's *time, Drinking and Quaffing to their God* Bacchus *was in uſe; that art being then much in requeſt, and the Goat made a Sacrifice to that God, for cropping*

ping the tender ſprigs of the Vine *that yielded their beloved Liquor.*

Non aliam ob culpam Baccho Caper omnibus aris
Cæditur, &c.

Only for this Crime we on Altars pay
Bacchus a Goat, and act the antient Play.
Then from great Villages *Athenians* haſt,
And where the High-ways meet, the Prize is plac'd.
They to ſoft Meads, heightned with Wine, advance,
And joyfully 'mongſt oyled Bottles dance
Th' *Auſonian* Race; and thoſe from *Troy* did ſpring
Diſſolv'd with Laughter, Ruſtick Verſes ſing;
In Vizards of rough Bark conceal their face,
And with glad Numbers thee great *Bacchus* grace.

And after him, Pliny *reports that Drunkenneſs and Debauchery were the principal Studies of thoſe times and Countries; they then inventing all ways imaginable to excite the Appetite, as if they had been born into*

into the world to no other end but to waſte good Wine; giving great rewards to the greateſt Drinkers. He tells us the Parthians *then contended for the glory of exceſſive Wine-drinking; but the* Italians *were unwilling to part with that honour.* Milain *yielding one* Novellius Torquatus, *that wan the name from all pretenders at that time, who had gone through all honourable degrees of Dignity in* Rome, *wherein the greateſt Repute he obtained, was for drinking in the preſence of* Tiberius *three Gallons of Wine at one draught, and before he drew his breath again; Neither did he reſt there, but he ſo far had acquired the Art of Drinking, that although he continued at it, yet was never known to faulter in his tongue; and were it ne're ſo late in the evening he followed this Exerciſe, yet would he be ready for it again in the morning. Thoſe large Draughts he alſo drank at one breath, without leaving in the Cup ſo much as would daſh againſt the Pavement. The* Weſtern *parts of the world, and namely* France *and* Spain, *were by* Pliny *cenſured for their Drunkenneſs with Beer and Ale, Wines being not there in that Age ſo frequent. For* Italy *exceeded all parts of the world for its curious Wines, there being reckoned* 195 *ſorts of*

Wines. Virgil *counted them innumerable.*

Sed neque quàm multæ ſpecies, nec nomina
Eſt Numerus.---- (quæ ſint

Their Names and Kinds innumerable are,
Nor for their Catalogue we need not care;
Which who would know, as ſoon may count the Sands
The *Weſtern* Winds raiſe on the *Libyan* Strands.

But at this day no Country yieldeth more variety, nor more pleaſant Wines than Italy. *In* Rome *are now drank (ſaith an Hiſtorian of their own) eight and twenty diſtinct ſorts of excellent Wines; and, as is reported, their* Lachrymæ Chriſti *exceedeth, for its pleaſant and exhilerating quality. So at this day the* Germans *are much given to Drunkenneſs, as one of their own Countrymen writes of them; that they drink ſo immodeſtly and immoderately at their Banquets, that they cannot pour it in faſt enough with the ordinary Quaffing-Cups, but drink in large Tankards, whole draughts, none to be left under ſevere penalties; admiring him that will drink moſt, and hating him that will not pledge them.* The Dutch-men *are not*

not behinde-hand with them; inviting all Comers with a Pail and a Diſh, making Barrels of their Bellies. In Poland, *he is moſt accounted of that will drink moſt Healths; and held to be the braveſt Fellow, that carries his Liquor beſt; being of opinion, that there is as much Valour to be found in drinking as in fighting. The* Ruſſians, Swedes, Danes, *and thoſe* Northern *Inhabitants, exceed all the reſt, having made the drinking of* Brandy, Aqua Vitæ, Hydromel, Beer, Mum, Meth, *and other Liquors in great quanties, ſo familiar to them, that they uſually drink our Country-men to death: Prieſts and people, men and women, old and young do ſo delight in drunkenneſs, that they are daily early and late found wallowing in the ſtreets. So that comparing other Nations and Ages with this of ours, we may well conclude, that the Inhabitants as well as the Air of* Great Britain *are temperate, not too prone to thoſe Vices other places are ſubject unto; and may juſtly give them the Character that was given to the* Perſians, *That* Temperance *is their chiefeſt Vertue: yet not to be abſolutely excuſed; for in the beſt Gardens ſome weeds grow, and amongſt the moſt civil, ſome rude and debauch'd are to be found. There is ſcarce any part of*

the

the world, but some of its Inhabitants are addicted to the drinking of intoxicating Liquours; which Nature hath prompted them unto, thereby to suffocate the thoughts of futurity, proper only to Mankind. The very Africans, Americans, *and* Indians *delighted in them, although they were not very exquisite in their preparation; but the* Americans *instead of Liquors used the fume of a Plant, that produced the same effect; whom we think no dishonour to imitate, even to excess; and it's probable out-do them in their own Invention, not esteeming it a Vice. The* Mahometans, *which possess a great part of the world (it's true) on a superstitious account forbear the drinking of much Wine; because that a young and beautiful Woman being accosted by two Angels (that had intoxicated themselves with it) taking the advantage of their Ebriety, made her escape, and won for her Beauty and Wit preferr'd in Heaven, and the Angels severely punished for their folly: For which reason, they are commanded not to drink Wine. Yet many of them doubting of the Divinity of that Relation, do transgress that Command, and liberally drink of the Blood of the Grape, which the Christians prepare out of their own Vineyards, palliating their Crime, in*

in that they did not plant the Tree, nor make the Wine: The reſt of them for the moſt part taking great quantities of Opium, *which hath a ſtupifying quality with it; and this generally when they are to look Death in the face. The* Chineſes, *and the other Inhabitants of the* Eaſtern *parts of* Aſia, *are the leaſt addicted to Ebriety, delighting themſelves with* Coffee, The, *and ſuch-like Drinks, free from thoſe ſtupifying qualities: yet are they not without their Carouſes; and thoſe of the intoxicating Drinks prepared of* Rice, Coco's, Sugar, Dates, *&c. equalling in ſtrength and Spirit any Liquors in the World. Therefore may we very well excuſe our own Nation in the ſlender exerciſe of this Vice, were they ſatisfied with our own pleaſant and ſalubrious Drinks, and did not ſpend their Healths, Lives, and Eſtates, as ſome are apt to do, on ſuch that are forreign and pernicious.*

And it is to be hoped, that if the Gentry of England, *which are for the moſt part Landlords of many fruitful* Villa's, *will but ſet their own hands to the Spade, and encourage their Tenants therein, which now delight more in the Plow; in a little time, the plenty and excellencie of our own, may extirpate the name of forreign Drinks. This being one*

of

of the most principal and universal points of Husbandry; Bread *and* Drink *being the chief supports of mans life: And this being of all parts of* Agriculture *the most pleasant; the* Plow *carrying with it, many times, more care, cost, and hazard, and not affording the tenth of that pleasure, as this* Art *of* Planting *doth; it giving you one of the noblest Oblectations the world affords; and hath by its infinity of delight, subjected unto it the Spirits of* Emperours, Princes, *and* Senators.

Translate of Rapinus.

While Fortune waited on the *Persian* State,
Cyrus who from *Astyages* the great
Himself deriv'd, himself his Gardens till'd.
How oft astonish'd *Tmolus* has beheld
Th'industrious *Prince* in planting Trees and Flow'rs,
And wat'ring them imploy his Vacant hours, *&c.*

Many more Examples might be here enumerated; but I hope the more Ingenious part of English-men will be easily convinc'd of the pleasure of this Exercise, and of the advantage also that it will bring to them and the Nation in general. It may be also objected, that the use of Cider *being now com-*

common, and the planting of Fruit-trees become universal in this Isle, and Cider *made almost in every Village, and many Tracts already written that contain in them the most excellent Precepts, Rules, Observations, and Experiments that can be imagined, for the propagating of the Trees, and making this Liquor, That this succeeding Tract may be needless. To which I answer, that although in some part it may seem to be true what is here objected, yet is not the use of* Cider *fully known, nor the planting of Trees so much encreased, as to amount unto a twentieth part of what in probability it may be in a few years; neither doth one in ten of substantial Housekeepers in the greatest part of the Nation make, or scarce know how to make this Drink. And as for the Books that treat of this Subject, they are but few; and what is mentioned in them of it, is but here and there a little. The most, and all indeed that is written of it well, is in that incomparable Tract of Mr.* Evelin (*his* Pomona *at the end of his Voluminous* Sylva) *which every one that may be capable of a small Plantation, is not willing to purchase. The consideration of all which, did induce me to take upon me the pleasure of prosecuting this designe of publishing to the world*

what

what I had done and observed in, First, The Experimenting the different natures of Trees and Soils, and of making them agree better one with the other than natural they would do; whereby several sorts of Fruit may be propagated in such places where otherwise they could not. Secondly, In the manner of grinding Apples, by a new-invented Engine that doth much facilitate the labour and charge formerly expended about it. Thirdly, In the way of fermenting this Liquor, and means of purifying and preserving it; with several other Rules, Directions, and Observations, more than what are generally known or taken notice of; wherein I have taken as much diligence and pains, as the subject and my leisure could afford. And I doubt not but it will yield the Reader content and satisfaction, although there may be several things inserted that may not seem new, but borrow'd; it is so in most Treatises, it being an usual saying, Quod Nil dictum quod non dictum prius, *Every thing hath been discoursed before*; Methodus sola Artificem ostendit. *The Method and Manner of performing what hath been discours'd of, is here shewn and without an intermixture of the sayings that hath been spoken or written of the*

Sw

Subject, it's impoſſible to make it compleat. But in that it is ſo accurt and ſuccinct, that without all peradventure it will not ſeem tedious to the Reader to read ſo few lines, that are but introductory to the End its ſelf for which this Tract was written.

You have not only here preſented to you the Art of Propagating the Apple-tree, *and preparing the Juice of its Fruit, but ſome ſelect Obſervations and Experiments in the Planting and Propagating ſeveral other* Vinous fruit-bearing trees, *and extracting, preparing, and preſerving their Juices: And alſo the beſt way of making* Metheglin *out of the fruit and labour of the induſtrious* Bees, *and by them extracted and collected from various Plants, or as many would have it, only from the* Oaken leaf. *And the extracting and decocting the Sap of the* Birch-tree, *making thereof a cool Summer-*Bonello: *Together with a brief touch at the compoſition of* Chocolette, The, *&c.* Concluding with a Corollary of the Names and Natures of moſt Fruits flouriſhing in this Iſle.

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AD-

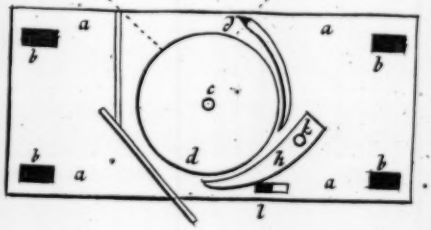
ADVERTISEMENTS.

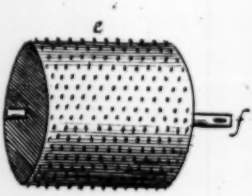
THe *Ingenios*, or *Cider-mills*, according to the deſcriptions in this Treatiſe (either with the ſingle *Roll* or with the double) are made exactly by *John Delamere* a Joyner in *Petersfield* in *Hampſhire*, from 20 *s.* to 30 *s* price apiece, according as they are either ſingle or double.

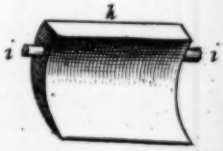
THere is lately reprinted in Folio, with large additions, a very uſeful Piece of the ſame Authors (Intituled) *Syſtema Agriculturæ*; The myſtery of Huſbandry diſcovered: Treating of the ſeveral new and moſt advantageous ways of Tilling, Planting, Sowing, Manuring, Ordering, Improving of all ſorts of Gardens, Orchards, Meadows, Paſtures, Corn-lands, Woods and Coppices. As alſo of Fruits, Corn, Grain, Pulſe, New-Hays, Cattle, Fowl, Beaſts, Bees, Silk-worms, *&c.* With an account of the ſeveral Inſtruments, and Engines uſed in this Profeſſion. To which is added *Kalendarium Ruſticum:* Or, the Huſbandman's Monthly Directions. And *Dictionarium Ruſticum*: Or, the Interpretation of Ruſtick Terms. Printed for *T. Dring*, over againſt the Inner-Temple-gate; and ſold by *T. Burrel*, at the Golden Ball under St. *Dunſtan*'s Church in *Fleet-ſtreet*.

CHAP.

Fig: I.







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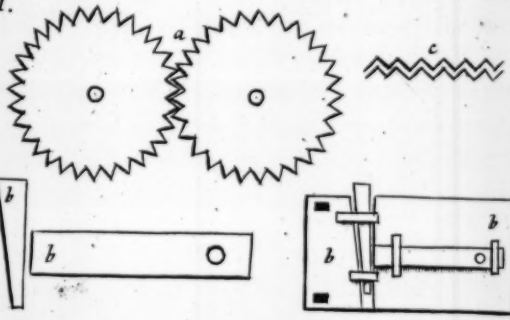

CHAP. I.

Of Drinks in General.

AS the Climates and Scituations of Countries, and the humours and diſpoſitions of the Inhabitants differ, ſo have they their various and different Drinks and Liquors, and their Diets, Habits, *&c.* Which Drinks and Liquors are by them alſo variouſly extracted or prepared, and out of different Subjects or Materials. Therefore, before I begin this Diſcourſe, it will not be amiſs to give the Reader a brief Account of ſuch diverſe Subjects or Materials, out of which they are extracted or prepared; that he may obſerve how induſtrious the Inhabitants of this Globe have been in every part thereof, (as it were by an univerſal conſent) in ſearching into the ſeveral

natures of Plants and Fruits, to exhauſt their Bloud and Tinctures, to gratifie their Guſts, and pleaſe their Fancies; that from the moſt remote *American*, to the extremeſt *Aſian*, they ſeem to accord in this, That that Liquor, out of whatſoever ſalubrious Matter extracted, which will moſt intoxicate, is to be highly eſteemed of; which in every Country in the world, either ſome *Root*, *Plant*, *Fruit*, or *Grain* will yield, if by humane Art it be rightly prepared.

SECT. I.

Drinks made of the Sap of Trees.

As the *Palm-wine* is made of the Sap of the *Palm tree*; which the *Africans* and *Aſians* extract, either by plucking off the Flower, and faſtening a Pot to the end of the Sprig into which the Liquour will diſtil; or by boring a hole in the Tree, and hanging a Pot under the ſame to receive it: which in the *Eaſt-Indies* they call *Sura*, in colour reſembling Whey; and at the firſt drawing is ſweet and pleaſant like Wine. This Liquor boiled they call *Terry*, and will keep ſome time; but if unboiled, ſuddenly turns into very good Vinegar. This Wine intoxicates the Brain, and inebriates as

as other Liquors do: if diſtilled, it makes Strong-water; if Raiſins of the Sun are infuſed in it, with ſome other the like Ingredients, it melioratеth the ſame exceedingly. Out of one Tree, two Gallons of this Liquor may be drawn in a day, without any damage to the Tree: Yet ſome have reported, that it hinders the ripening of the Fruit, and that you muſt expect no Fruit from the Tree out of which you thus extract its blood; which may be ſuppoſed to happen, when too much is drawn, or in too dry or late a Seaſon.

In the *Molucca's* they extract Wine out of another Tree, there called *Laudan.*

In the *Caribbe Iſlands* is a prickly or thorny *Palm*, out of which is alſo extracted a *Wine*, after the ſame manner as before.

Alſo out of the *Birch-tree* may be extracted a pleaſant Liquor, which being neceſſary and uſeful, and to be obtained in this Climate, the manner of drawing and ordering it you ſhall finde in the Sequel of this Diſcourſe.

SECT. II.

Of the Juices of Fruits and Berries.

Of the Fruits of Trees. As *Wine* is made

of the Fruit of the *Vine*, and is the moſt common, yet the richeſt Drink the world affords.

Cider of the Fruit of the *Apple-tree*, and *Perry* of the *Pear-tree*; of more uſe and advantage in theſe *Northern* Regions, than the bloud of the Grape.

Drinks made of the Fruit of the *Cherry*, *Currant*, *Gooſeberry*, *Rasberry*, *Mulberry*, *Eldar*, and ſeveral other Trees, in this and ſeveral other more *Northern* Countries become very pleaſant; as alſo thoſe made of *Blackberries* and *Strawberries*: their ſeveral Preparations are likewiſe herein treated of.

Coco-Nuts yield alſo a Milk or Oyl, uſed in the Countries where they grow for Drink; but being gathered green, they give a very pleaſant and thin Juice, which the Natives drink of whilſt it is freſh.

In *Negroland* are ſeveral Fruits that yield *Wine*, in great eſteem among the Inhabitants, as *Sebankou* and *Syby-Wine*, &c.

In *Jamaica* and *Braſilia*, grows the Fruit *Ananas*, on a ſtalk of a foot long, ſurrounded with ſixteen ſharp Leaves, between which is the Fruit like a *Pine-apple*, but much bigger; the innermoſt pulp whereof melts on the tongue, and is of ſo delicious

a taſte, that it exceeds all other dainties: Of this Fruit is made a Drink no way inferior to *Malvaſia-Wine*.

Of the *Pomegranate* is extracted an excellent Juice, where plenty of them is to be had.

The *Chineſes* make a Drink of a ſort of Fruit there, that grows on a Tree beſet with Thorns like the *Lemon-tree*: the Fruit is neer as large as a mans head, with a Shell over it; the Pap within is reddiſh, and ſour-ſweet like unripe Grapes.

Coffee is alſo made of a certain *Berry*.

In the *Caribbe* Iſlands, the Tree *Acajóu* bears a Fruit like a very fair Apple, of which the Iſlanders make a Drink very much in eſteem among them, being of an excellent taſte.

In *Peru* and *Chili* grows the *Unni*, by the *Spaniards* called *Murtilla*, bearing a Fruit not unlike little red Grapes, which are of a tart taſte. The Wine preſſed out of this Fruit, is cleer to the Eye, pleaſing to the Palate, and good for the Stomach.

In *Braſilia* is uſed a Drink called *Pacobi*, made of the Fruit of the Tree *Pacobebe*: They alſo make the Drink *Caoi*, of the Fruit of the *Ocaijba-tree*, which being ſtamped in an wooden Mortar, and ſtrein'd, it firſt

looks like Milk; but after a few days ſtanding, purifies, and intoxicates the liberal drinkers of it.

SECT. III.

Of Grains.

From divers ſorts of Grains are extracted ſeveral excellent Drinks. From our Britiſh Grains, as *Barley*, *Oats*, *Wheat*, &c. are extracted *Beer*, *Ale*, and *Mum*.

The *Africans* in *Negro-land* brew their Beer of *Mille*, which they ſteep in water till it ſhoots, and then dry it in the Sun, and ſtamp it to Meal in great Mortars, with whom Mills are not yet in uſe; then they pour on it boiling-hot water; they make it alſo ferment with Yeaſt, imitating thereby our *European* Malt-drink. It is probable this *Mille* is the ſame with that *Millet* with which the *Dageſtan Tartars* make their *Bragga*, which they eſteem very delicious, drink freely of it, and grow ſuddenly drunk therewith.

On the Coaſt of *Chili* and *Peru* in *America*, the Inhabitants make a Liquor of *Mays*, which grows there in abundance: they ferment it like our *Ale*, and drank moderately, it refreſheth; but the Inhabitants uſually

uſually follow it ſo cloſe, till they are mad-drunk.

They make alſo a very pleaſant Drink of the Grain *Teca*, dried in the Sun, thraſh'd, and parch'd in hot Sand, then ground on a ſquare flat Stone, with a Roller of ſtone, and infuſed in a great quantity of water.

The *Chineſes* make excellent Drink of *Rice*, which is very pleaſant of taſte, and preferred by them before Wine.

In the Iſle *Formoſa* not far from *China*, the Natives make a Drink as ſtrong and intoxicative as Sack, out of *Rice*, which they ſoak in warm water, and then beat it to a Paſte in a Mortar; then they chew ſome *Rice-meal* in their mouths, which they ſpit into a Pot till they have got about a quart of Liquor, which they put to the Paſte inſtead of Leaven or Ferment: And after all be kneaded together till it be Dough, they put it into a great Earthen pot, which they fill up with water, and ſo let it remain for two months; by which means they make one of the moſt pleaſant Liquors a man need drink: the older, the better and ſweeter, although you keep it five and twenty or thirty years.

SECT. IV.

Of the Extracts of Leaves, Stalks, and Juices.

Various Drinks are alſo made of the Leaves and Stalks of Plants; the principal whereof is made of the Leaves of *The*, or *Tea*; and a counterfeit thereof of our Engliſh *Betony*, but far inferior to it.

Of the *Sugar-cane* is none of the meaneſt Drink prepared; for in the *Eaſt* and *Weſt-Indies* various Drinks are made of it.

In the more *Southern* parts of *America*, the Natives chew the Herb *Cava*, and put it into a wooden Trough, and adde water to it, and mix it well; which they eſteem a *Royal Repaſt*.

Of the Rindes of *Pomgranates*, with an addition of *Cinamon*, the *Perſians* make a pleaſant Drink.

SECT. V.

Of Roots.

Several Drinks are made by many people out of Roots; as the *Æthiopians* make a Drink of the Root they call *Dacha*, by mixing it with water, which cauſeth Ebriety;

ety; which Root ſerving for eating as well as for drinking, they take great care to propagate.

In the *Southern* part of the *Weſt-Indies*, the *Caſſavi-roots*, which ſerve them inſtead of Bread, the Natives prepare (by ſtamping of it) to make their Drink which they call *Parranow*.

The *Braſilians* prepare their Drink *Aipu* out of the Root *Aipimacaxera*, either by an old toothleſs woman chewing the ſame to a Pap, and ſpitting it into a Pot, on which they pour water, and afterwards boiling it leiſurely, ſtirring it all the time it ſtands over the fire; or by boiling the ſaid Root ſo long till it comes to be like Butter-milk, and then letting it ſtand till it hath done working; which makes a very pleaſant Drink.

The ſame people alſo preſs out a Drink from *Potatoe-roots*, which they call *Jetici*.

SECT. VI.

Of Mixtures of divers things.

From the mixtures of ſeveral Ingredients are many pleaſant and neceſſary Drinks prepared; among which the ſeveral Liquors made of *Honey* may be included, it being by the induſtrious Bee extracted out of

of ſo various Materials, and made uſe of by moſt Nations to make their inebriating Liquors withal; which rather than it ſhould fail of that end, ſome of them adde *Opium* to the Compoſition.

Chocolate is alſo compounded of ſeveral things, and is the moſt eſteemed in *America* above any other Drink whatſoever; and much in uſe throughout moſt of the Maritime parts of *Europe*.

Pale-puntz, here vulgarly known by the name of *Punch*; a Drink compounded of *Brandy* or *Aqua Vitæ*, Juice of *Lemons*, *Oranges*, *Sugar*, or ſuch-like; very uſual amongſt thoſe that frequent the Sea, where a Bowl of *Punch* is an uſual *Beverage*.

In the *Eaſt-Indies* they extract an excellent Liquor which they call *Arak*, out of *Rice*, *Sugar*, and *Dates*; which is a kind of *Aqua Vitæ*, much ſtronger and more pleaſant than any we have in *Europe*.

Thus having given you a hint of ſome of the moſt general Drinks that are in uſe in moſt parts of the world, (every Nation having ſome peculiar or proper Drink which they moſt affect) alſo of what, and after what manner, as neer as I could from ſuch information as I finde, the ſame are extracted

tracted and prepared; to the end that our own Country-men may thereby receive encouragement to attempt the like from thoſe Materials our *Britiſh* Iſle affords, which I ſhall in this Diſcourſe endeavour to demonſtrate to be as many and as good as are in any place or Country in the world; and that by the true and genuine way or method of ordering the ſame, a ſufficient quantity of many and various ſorts of Wines and other pleaſant Liquors may be here prepared, not only to ſuffice our own Inhabitants, but yield a conſiderable ſupply to our Neighbours; to the great improvement of this our Country, and the diminution of that unreaſonable gain and advantage other Nations make by the trade hither of Drink only.

CHAP.

CHAP. II.

That the Juices of Fruits are the best of Drinks, and Universally celebrated.

SECT. I.

Their Antiquity.

IT appears by the most true and antient History, that the first Liquor our Forefathers used to gratifie their Palates and delight themselves withal, (besides common Water) was the Blood of the Grape; which was no sooner understood to be so excellent and pleasant a Drink, but it set them at work to plant and propagate that Tree, to dress and order their Vineyards, and to extract and preserve the Juice thereof for their extraordinary Repast.

SECT. II.

Their Universality.

It also appears from the observation of Travellers and Historiographers, that the Natives

Natives of moſt of the known parts of the world, have made uſe of ſome Fruit or other, naturally growing in their own Countries, as the moſt delicate of their *Beverages.*

As the Blood of the Grape is preſerved on the *North-ſide* of the *Tropick* of *Cancer* almoſt in every part of the temperate *Zone*, unto the 49 degree of Latitude, unleſs where the Laws of *Mahomet* forbid; whoſe Diſciples often tranſgreſs that Law even to exceſs, and much leſſen that imaginary ſin (as they ſuppoſe it otherwiſe to be) if the Chriſtians dreſs their Vineyards, and prepare their Wines.

SECT. III.

The Reaſons thereof.

Neither is it without juſt cauſe that that Liquor is celebrated in thoſe Countries above any other Drink whatſoever, it being ſo Homogeneal to the natures of thoſe people that inhabit there. All Wines that proceed from the Vine being of a Corroborative and Mundificative nature, and withal have an exhilerating and vivifying faculty with them, that to thoſe whom the too frequent uſe hath not abated or dulled the edge

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edge of their Vertues, they are rather Cordials or Reſtoratives, than ordinary Nutriment, or familiar Medicine.

The Juice of the Apple, *Cider*, is for the ſame cauſe preferred on this ſide the 49 degree of Latitude, where the Bloud of the Grape obtains not that degree of Maturity in the Fruit, as in the more hot Countries: And the Apple being but a pulpy Fruit, not enduring thoſe exceſſive heats and droughts thoſe Countries beyond that degree, and more *Southerly*, are ſubject unto. It being obſerved, that in *Normandy*, and the *Northern* parts of *France*, *Flanders*, &c. their *Cider* far excells their *Wines*: Here in *England* alſo, *Cider* well made of Mature Fruits, not only excells any *Wine* made here, but the *Wines* that are made in the moſt parts of *France*, *Germany*, or any other Country on this ſide the 40 degree of Latitude.

The principal cauſe of the excellency of theſe Liquors above any other prepared Drinks, is, for that this Juice or Sap is not only collected out of the Earth by the ſmall fibrious Roots of the Trees, but exhaled by the attracting power of the Sun, into the Branches and Stalks, thence deſcending into the Fruit, where it is by the continual ani-

animating heat of the Sun, maturated. Which natural proceſs of Extraction, Diſtillation, Concoction, Digeſtion, and Maturation, far exceeds the Art of man to imitate, much leſs to exceed. Wherefore, not without cauſe, may thoſe Liquors be worthily preferred to any other Drinks whatſoever: And more particularly and eſpecially, the Juice of the Apple in theſe more *Northern* Regions, before any other Liquors in what Country ſoever prepared. Not but that thoſe Liquors, in thoſe places where they grow, may be much better than any other produced there: But being tranſported into a more remote Country, and of a different Climate, it begets an apparent alteration in the Drink it ſelf; which, together with the great difference that is between the Inhabitants of either Country, very much derogateth from the happy effects that ſuch Liquor might produce, if made uſe of neerer the place of its firſt Extraction.

And as the Inhabitants of theſe *Europæan*, and part of the *Aſian* Countries, do affect, and principally eſteem theſe Juices of the *Grape* and *Apple*: ſo they of the more remote parts of *Aſia* and *Africa*, put a great value on the Juice of *Coco-nut*, taken either

ther before it be quite ripe, when it yields a thin, though immature, yet pleaſant Liquor; and when more mature, then a more rich and oyly Repaſt.

In *America*, no Drink ſo much in eſteem as *Chocolate*; the principal Ingredient whereof is the Nut *Cacao*, which in the vaſt Regions there ſubdued by the *Spaniards*, are propagated in ſuch abundance, that the accompt thereof is almoſt incredible; and for no other uſe, than to be converted into that excellent *Regallo*, *Chocolate*.

The delicious Liquor made of the *American* Fruit *Ananas*, is alſo much in eſteem in *Jamaica*, *Braſilia*, and thoſe parts.

Notwithſtanding theſe Wines or Liquors have obtained the pre-eminence above all other Drinks throughout the greateſt part of the known world, yet are there ſeveral ſorts of more inferiour Fruits that yield very pleaſant and wholeſome Drinks (as before may be obſerved) that can never be advanced to that repute or univerſal acceptance, as theſe laſt mentioned; but may nevertheleſs be compared, if not preferred to any other Drinks extracted or prepared from any other Subject than Fruit.

The Juices of Fruits being Mature, are wor-

worthily eſteemed to be very grateful to the Stomach, and of eaſie digeſtion; being, by reaſon of their concoction and maturation in the Fruits, become before-hand a *ſemi Sanguis*, or half Blood, and are not ſo ſubject to putrefaction as other Extractions of a meaner Claſſis; which is alſo the reaſon, that with a due ordering of them, by a meer natural Maturation, the moſt of them will keep in their full purity ſeveral months and years; and ſome of them for many years increaſing ſtill in ſtrength, purity, and pleaſantneſs; which no other Extracts are capable of.

CHAP. III.

That Cider *and other Juices of our Engliſh Fruits, are the beſt Drinks for this Country.*

SECT. I.

Its Antiquity and Nature.

HAving taſted a little of thoſe ſeveral Dainties that are in moſt Countries liquidly prepared to pleaſe the Palate, I

hope every Engliſh man, or Native of this Iſle, on his return hither, will conclude with me, that our Britiſh Fruits yield us the beſt *Beverages*; and of theſe Fruits, the *Apple* the beſt, which is here called *Cider*.

As for the Antiquity of this Liquor in this Country, much might be ſaid, if you will grant that the name *Wine* was formerly, as well as lately, uſed as a common name to the Juices of ſeveral other Fruits beſides the *Grape*; there being mention made of ſeveral Vineyards that have antiently been in *England*; as that of *Elie*, *Dans Vinea Vinum*, a Vineyard yielding Wine; and that of *Bromwell-Abby* in *Norfolk*, bearing the names of Vineyards to this day.

The name Sider being *Britiſh*, having ſome Analogy with the Greek word *Sicera*, is alſo an Argument that it was a Drink amongſt the Antient *Britains*, they wanting Names for new things.

The Tradition that Tythes have been paid for Wines made of certain Vineyards in *Glouceſter-ſhire*: And *Camdens* teſtimony that there was no County in all *England* ſo thick ſet with Vineyards as *Glouceſter-ſhire*, nor ſo plentiful in increaſe; the Wines made thereof not affecting their mouths that drank them with an unpleaſant tartneſs, *&c.*

and

and adds that to be the reaſon why many places in that Country, and elſewhere in *England*, are called Vineyards: All theſe Teſtimonies may be as well for the planting of Orchards for *Cider*, as Vineyards for *Wine*; the name *Wine* might be then uſed for that Liquor, as now for other: and the preference they then gave to the Wines of *Glouceſter-ſhire* before other, in not being ſo tart, is a good Argument that it was ſo, becauſe the *Spontaneous trees* or *Wildings* of that Country might very well yield a better Drink then, than the Apples formerly planted in the Orchards of other parts of *England*; it being but of late years that pleaſant Fruit, or good *Cider*-Fruit either, have been propagated in moſt parts of this Country; and in ſome places not any to this day.

The name of *Cider* from *Sicera* being but a general name for an inebriating or an intoxicating Drink, may argue their ignorance in thoſe times of any other name than *Wine* for that Liquor or Juice; it being as proper for the Juice of the *Apple* as the *Grape*, if it be derived either from *Vi* or *Vincendo*, or *quaſi Divinum*, as one would have it.

Alſo the vulgar Tradition of the ſcar-

city of forreign Wines in *England, viz.* that *Sack* which then was imported for the moſt part but from *Spain*, was ſold in the Apothecaries Shops as a Cordial Medicine; and the vaſt increaſe of Vineyards in *France*, (*Ale* and *Beer* being uſual Drinks in *Spain* and *France* in *Pliny*'s time) is an Argument ſufficient that the name of *Wine-Vineyards* might be attributed to our *Britiſh Wine-Cider*, and to the places ſeparated for the propagating the Fruit that yields it.

SECT. II.

Cider *preferred to forreign Wines.*

Whether it be from the greater degree of concoction in the Juice of the *Apple*, being thinner diſperſed in the body of the Fruit, than that is which is in the *Grape*, or whether it be becauſe the greateſt part of the Wines uſually imported from abroad, are not of their beſt extraction, or impaired by tranſportation; the well-made *Cider* of ſome parts of *England* is to be preferred by the moſt indifferent and unprejudiced Palates: as the moſt acute *John Evelin* Eſq; in the Preface to his *Pomona*, hath diverſly illuſtrated, eſpecially by

by that Preſident of the Challenge of Mr. *Taylor* with the *London*-Vintner, where the *Redſtreak-Cider* gained the Victory over the Vintners beſt *Spaniſh* or *French Wine*, by variety of judges.

Wine of the *Grape*, although of it ſelf, being well made and preſerved, without thoſe too common *Sopiſtications*, *Adulterations*, *Brewings*, or *Compoſitions*, is without doubt an excellent Cordial, and taken moderately, much conducing to health and long life: yet the conſtant uſe of it as a quotidian Drink, Experience hath taught us, that it is very injurious to the Drinker. If it be new, that is to ſay, under the age of a year, or be ſet into a new fermentation by the addition of new *Wine* or *Stum*, it purges, and puts the blood into a fermentation, that it indangers the health of him that drinks it, and ſometimes his life. If it be old *Wine*, which is commonly the beſt, then the Vintners cunning in preſerving it, and making it palatable by his ſecret and concealed Mixtures, renders it dangerous to be drank either faſting, or in great quantity; many having died ſuddenly meerly by drinking of ſuch Wine: For there is no Drink more homogeneal to the bloud than *Wine*, the Spirit thereof being

More Wholeſome.

the beſt Vehicle of any Medicine to the moſt remote parts that the bloud circulates in: therefore if any evil mixture be in it, the more it operates, and is ſooneſt conveyed to the heart and all other parts of the body.

It is recorded by *Pliny*, That *Androcydes* a noble, ſage, and wiſe Philoſopher, wrote unto *Alexander* the Great, to correct and reform his intemperate drinking of Wine, whereto he was very prone, and in his fits of Drunkenneſs very rude; the immoderate drinking whereof is by him affirmed to be very dangerous and pernicious.

As for *Cider*, that we have had the long and conſtant experience of the making of it, and preſerving it for ſeveral years in its true and genuine taſte; *Cider* of two and three years old being not unuſual in the *Cider*-Countries, the late Lord *Scudamore* having had a Repoſitory on purpoſe to preſerve it in, at his Seat in *Herefordſhire*, and that without any Sophiſtication or Adulteration, but by the onely Art of right preparing and ordering of it.

The conſtant uſe of this Liquor, either ſimple or diluted, hath been found by long experience to avail much to health and long life; preſerving the Drinkers of it

in

in their full ſtrength and vigour even to very old Age; witneſs that famous Hiſtory in my *Lord Bacon's Hiſtory of Life and Death*, of eight men that but a little before his time danced a *Morris-dance*, whoſe Age computed together made eight hundred years; for what ſome wanted of one hundred years, others exceeded. Theſe were reported to be Tenants of one Mannour, belonging to the Earl of *Eſſex* at that time, and to be conſtant *Cider*-drinkers. And divers other Preſidents of the like nature, *Herefordſhire*, *Glouceſterſhire*, &c. can furniſh you withal.

If it be new and unfermented, it prejudiceth not the Drinker; nor if it be old, ſo that it's unpleaſantneſs forbids you not to drink it, but for its unpleaſantneſs ſake.

Its agreeing with our natures, adds much to its Salubrity, becauſe of its innocency, it yielding alſo a good Spirit, which may probably prove a Vehicle anſwerable to that of other Wine: At leaſt it may make a very good *Brandy*, which (when the Fruit is grown more common) in plentiful years may be experimented and improved.

Although there is no *Liquor*, *Drink*, nor *Diet* alike pleaſant to all, ſome preferring *More Pleaſant.*

that dull *Coffee* before any other Drink whatſoever; ſome *ſtale Beer*, others *fat Ale*, *Mum*; one *Claret*, another *Sack*, before any other Drinks: Yet is there not any Drink known to us ſo generally Palatable as *Cider*; for you may make it ſute almoſt with any humourous Drinker: It may be made luſcious, by addition of a good quantity of ſweet *Apples* in the firſt operation; pleaſant, being made with *Pippins* or *Gennet-Moyles* onely; racy, poignant, oyly, ſpicy, with the *Redſtreak*, and ſeveral other ſorts of Fruits, even as the Operator pleaſes. And it ſatisfies thirſt, if not too ſtale, more than any other uſual Drink whatſoever.

More Profitable.

But that which moſt tempts the *Ruſtick* to the Propagation of this Fruit for the making of this Liquor, is, the facile and cheap way of the raiſing and preparing of it; for in ſuch years that Corn is dear, the beſt *Cider* may be made at a far eaſier rate than ordinary *Ale*; the thoughts whereof add much to the exhilerating vertue of this Drink, and, I hope, will be a good inducement to the farther improvement of it.

Perry.

Next unto *Cider*, *Perry* claims the precedency, eſpecially if made of the beſt juicy *Pears* celebrated for that purpoſe.

The

The Wines or Drinks made of *Plums*, *Cherries*, *Currants*, *Gooſeberries*, *Raſberries*, yea, and of our Engliſh *Grape*, may be ſo prepared, that they may be more acceptable to our Palates, and more healthy, pleaſant, and profitable than thoſe forreign Wines many are ſo fond of. *Juices of other Fruits.*

CHAP. IV.

Of the beſt and moſt expeditious ways of Propagating the ſeveral ſorts of Fruit-trees for the ſaid uſes.

SECT. I.

Of Propagating the Apple-tree.

THere is no Fruit-tree in this whole Iſle of *Great Britain*, that is ſo univerſal as the *Apple-tree*; there being but few places, and but little land, wherein it delighteth not: hardly any place ſo cold or moiſt, hot or dry, but it will thrive and bear Fruit. Neither is there any Fruit-tree more eaſily Propagated, nor any that bears ſo great a burthen of Fruit, as this doth: Therefore is the planting and increaſing

creaſing of them more to be encouraged and promoted than of any other, conſidering alſo the excellency of the Liquor extracted from its Fruit. For the Propagating whereof, the firſt thing to be conſidered is, the nature and poſition of the land wherein it is to be planted.

Although this Iſle be ſtiled the *Queen of Iſles*, for its temperature of *Air*, fertility of *Soil*, &c. that we may truely ſay of her as *Rapinus* of *France*,

Though to all Plants each Soil is not diſpos'd,
And on ſome places Nature has impos'd
Peculiar Laws, which ſhe unchang'd preſerves;
Such ſervile Laws Great Britain *ſcarce obſerves:*
She's fertile to exceſs, moſt Fruits ſhe bears,
And willingly repays the Plowman's cares.

Adapting Fruits to the Soil.

Yet is there required ſome Judgement from the Huſbandman in placing each Tree or Plant in the proper Soil it moſt delights in, or in adapting Plants to the nature of each Soil you have to plant; for Trees will ſtrangely proſper in ground that they like, comparatively to what they will do if they are planted in ground wherein they delight not.

Virgil

Virgil was of the ſame opinion, when he ſang

Nec verò terræ ferre omnesomnia poſſunt,&c.

All grounds not all things bear:the Alder-tree
Grows in thick Fens; *with* Sallows, *Brooks agree*;
Aſh,*craggy Mountains*; *Shores*, *ſweet* Myrtle *fills*.
And laſtly, Bacchus *loves the Sunny Hills*.

The *Apple* it ſelf, which is but one kinde of Fruit, yet are there ſeveral ſorts of them that delight in ſome places, and will not thrive in another: which made the *Kentiſh*-men ſo addict themſelves to the planting of the *Pippin* and *Codlin*, becauſe no other Apple would proſper ſo well in that County; which gave them the names of *Kentiſh-Pippin* and *Codlin*; when in ſome other places neither of thoſe Fruits will proſper without Art, but are deſtroyed by that pernicious Diſeaſe the Canker. The *Redſtreak* alſo is obſerved to proſper better, and yield a better Juice in ſome places than in other, although but in the next Pariſh.

The ſame is to be obſerved in Pears:

Sum-

Summer-Pears will thrive where Winter-Pears will not. Which is the firſt thing to be conſidered of, to wit, what Species of Fruits are moſt natural to the Country or place where you intend to raiſe your Trees; which may be known partly by obſervation of the growth of Trees in the Neighbourhood, and (where that ſatisfies not) by experimenting variety of ſorts in your Ground. And when you have reſolved what Species to propagate, then ſelect or ſet out your Ground.

What ſort of Land beſt.

For the diſtinguiſhing whereof, there are many Rules; but he that is ſeated or fixed in any place, and cannot conveniently change his Habitation, muſt be content with his own: and if any defect or diſadvantage be in it, it may be it hath ſome advantage that another wants. If it lie to the *North*, the Trees bud and blow the later, and many times the Fruit ſucceeds the better, and is the freer from the injurious *South*-winds in the Autumnal Seaſon. If it lie to the *Eaſt*, it hath not onely the advantage of being later budded and blown, becauſe of the cold *Eaſterly*-winds in the Spring; but the Fruit ripens the better, the Morning-Sun in the Summer being by much the beſt; and the Fruits are alſo freed from

from the *Weſtern*-winds, which with the *South* are the worſt. If your Land be on a dry or riſing ground, you may plant them the thicker, which will cover and ſhade the ground the ſooner, and make them bear the better: the Fruit will alſo yield a more Vinous Liquor. If your Ground lie in a cold moiſt Vale, the ſooner may you raiſe a natural Fence or ſecurity about it, to defend your Trees from cold Winds and ſtiff Guſts, which diverſly annoy your Trees and Fruits. The worſe your Land is, the more you have for your money; the better it is, the leſs charge to plant it, and the ſooner will you reap the benefit of your labour.

But if you have the liberty to chuſe what Land you will for planting of Fruit-trees, then for the *Cider-Fruit* chuſe a good warm light Rye-land: for the heavier, colder, and moiſter Wheat-land is not ſo good, the *Cider* being not ſo cleer nor Vinous.

If the Ground be very light and rich of it ſelf, or ſo made by improvement, ſeveral ſorts of Apple-trees, eſpecially the *Pippin*, will be ſo apt to the Canker, that they will ſcarce ever be large Trees: Therefore a firm and ſtrong Land is beſt for Winter or longlaſting-

ing-Fruit; but for the ordinary *Cider* or Summer-Fruit, Land cannot be too light: The more it inclines to redneſs, the better.

Amendment of Land. If the Ground be too hot, dry, ſhallow, or barren, raiſe the land on broad Ridges, that the middle of them may be about twenty or thirty foot diſtance, according as you intend to plant your Trees: Let the Intervals between the Ridges be about ſeven or eight foot broad, or more, and the Earth taken up between about a foot deep caſt on the Ridges, which will make the ground thicker than before it was, and your Trees you may plant deeper in it than otherwiſe you could do; where they will thrive very well, as may be perceived on the Banks of ſome land in the Hedges, that Apple-trees will thrive better than in the level land.

If water cannot be obtained to moiſten it ſometimes, by ſmall Rivulets running through it, which will highly advance the growth and fertility of your Fruit-trees; Chalk, Marle, or Clay laid and ſpread on the ſurface of it, will cool and ſadden it, and make the ground very rich, and yield a good Graſs, under which the Roots of the Trees will ſpread with delight.

Fern

Fern or any other Vegetable, nay Stones covering ſuch Land, will preſerve it cool and moiſt in the Summer, as well as warm in the Winter.

If the ground be cold, moiſt, and ſpewy, endeavour what you can to drain it, either by open Trenches or cloſe, which are made after this manner. Dig ſeveral narrow Trenches, one between each row of Trees, deſcending to ſome Ditch at the lower end of your Ground, and lay in the bottom of it Alder, Frith, or Faggots (ſome ſay Beech will laſt as long) and fill the Trenches again on the ſaid Frith or Faggots, and level your Ground as before; by which means the water will inſinuatingly paſs through the ſaid wood to the lower ſide of your ground, leaving the reſt the drier: But if you cannot conveniently do this, then raiſe it as before is directed for your dry land.

For the mixture or compoſition, any Dung or ſandy Soil is very good, ſo that the Dung, whilſt new, come not too neer the roots of your Trees.

But if your Ground be of a cold Clay, or ſtrong ſtiff nature, then the beſt way is to caſt it up as before, tempering it with Sand, or ſandy compoſt, any ſort of Dung,

or

or rotten Vegetables; and to plant it with the moſt hard Apples, *Pippins*, &c. and keep the ground annually plowed or digged to the very ſtem of the Tree, which will be a means to preſerve the Trees from Moſs, which Trees in this ſort of ground are naturally ſubject unto.

If Land be ſubject to be overflown by the ſwelling of Rivers, or other falls of water, it often proves very good for Fruit, ſo that it be drained again, and the water not ſuffered to ſtand too long on it, and the Land not of a cold ſtiff nature.

Poſition or Scituation of Land to be planted.

If your Land decline a little towards the *South-Eaſt*, it is eſteemed the beſt Scituation of Land to plant Fruit-trees on: Firſt, By reaſon that in the Spring, *Eaſterly* winds keep back or check the Bud. Secondly, For that it hath the benefit of the whole *Anti-Meridian* Sun, which is eſteemed the beſt in the Summer and Autumn, diſperſing the cold Dews early from the chill Fruits; the Air being warm'd by the Sun all the day, is ſufficient in the evening to preſerve and continue the ſame heat without the Sun-beams. Thirdly, It hath ſome advantage by this Poſition from the Winds in the Autumn, that blow from the *South-Weſt* and *Weſt*, uſually prejudicial, and ſome-

ſometimes deſtructive to the Fruits.

Fencing or ſheltring of land.

If you plant your Fruit-trees in your Hedge-rows, or *ſparſim* here and there about your Land, your onely care will be to fence and preſerve each Tree from the wrong or injury it may ſuſtain by Cattle, unleſs you graft on ſtocks that are already nurſed up in the Hedges, naturally defended thereby from ſpoil; but if in open places, care muſt be taken to Buſh them, ſo that Cattle may not rub againſt them, nor crop them.

If you make a Plantation any where by it ſelf, if it be not otherwiſe defended by Hills or Trees, you may at the ſame time as you plant your Fruit, plant other Trees on the confines of your Plantation. If your Ground be moiſt, then may you plant *Poplar* or any other of the taller ſort of Aquaticks: If a dry Land, then *Wallnuts*, *Aſh*, or any Tree that delights on dry land. For ſuch defence preſerves your Trees from blighting Blaſts in the Spring, and deſtructive Winds in the Summer and Autumn.

At the ſame time alſo when you plant your Fruit-trees, it will much conduce to the preſervation of them when Mature, if you plant a good Quick-hedge of *White-thorn*, which will be a very good Fence

by the time that the Fruit-trees come to bear, ſufficient to keep out the Cattle from cropping the tender Twigs of your Fruit-trees, and rubbing againſt their Stems; and unruly people from deſtroying the Fruit.

SECT. II.

Of the Nurſery of all ſorts of Fruits.

To obtain as well good Trees as good Fruits, is a great care. Some pretend to raiſe excellent Fruits from the Kernel of the Apple, which rather carrieth with it the nature of the Stalk the Tree was graſted on, than the Fruit it proceeded from: therefore I ſhall take little notice of it here. Although many have pretended to have raiſed ſome new Species of Fruits by this means, Grafting being by all, as well our Modern Planters as the Antient, concluded to be the beſt and moſt expeditious way to preſerve the right Species of Fruits, and accelerate their bearing. The choice of the Stock is therefore to be conſidered: which moſt agree the *Crab-ſtock* to be the beſt, although many affirm that the *Wilding-ſtock*, or of the *Paradiſe-Apple*, to be preferred: for a Tree grafted on a *Crab-ſtock*

is of longer duration than any other, the wood being more hard, and leſs ſubject to decay, and the Root more naturally ſpreading in our Soil than any other. It alſo not onely preſerves, but quickens and enlivens the Guſt of any delicate Apple.

But if the Apple you intend to Propagate be over-tart, then ſweeten it on a *Gennet-Moyle* or *Wilding-ſtock*, rather than on a *Crab-ſtock*.

When you are reſolved on what Stocks you intend to graft, then provide your ſelf with the Chaff or *Murc* of that Fruit you derive your Stock from, and ſpread it thin over a Bed of Earth dig'd, dreſſed, and cleanſed from Weeds; and ſpread or ſift Earth two or three fingers thick lightly over it, that it may be all covered; and ſo let it lie all the Winter, and in the Spring following you will have plenty of young Stocks appear promiſcuouſly. During the Summer, keep them weeded clean, and the Winter following draw them where they are too thick or irregular, and tranſplant them into other Beds well dreſſed, as before, and there let them ſtand until they are big enough to graft. *Raiſing of Stocks.*

Or you may obtain *Crab-ſtocks* out of the Woods and Hedge-rows, and plant

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Or you may obtain *Crab-ſtocks* out of the Woods and Hedge-rows, and plant

them in the places where you intend they ſhall ſtand.

Obſerve always, that you make your Seminary in as barren Land as, or more barren than the place you intend to remove them into; by which means you may raiſe a fair Plantation on a mean Soil: Where many have been diſcouraged by removing of their Trees out of a rich Nurſery into a mean Land, blaming the Tree or Soil, when it is indeed their own ill husbandry.

The *Crab-ſtock* alſo thrives beſt when removed from a cold and dry Hilly-land, to a warm and fertile Soil; but thoſe raiſed from the Seed are the beſt.

It is to be obſerved, that the Stocks raiſed of Seed or Kernels emit a downright Root into the ground, called a *Tap-root*, which in the removal of your young Stocks, ought to be taken away; then will the Roots of your Stocks ſpread, which will make them the eaſier to be removed, when they are grafted and fit for tranſplantation. Alſo the ſpreading Root is the beſt both for the feeding the Tree and bearing Fruit.

Thus having provided yourſelf of Stocks, either of Kernels in your Nurſery, or in your Fields, Hedge-rows, or other places

of

of *Crab-ſtocks*, either naturally growing or planted there, which having ſtood a year or two, are fit to be grafted on; Then you muſt furniſh your ſelf with Grafts ſuitable to your deſigne.

Before you cut your Grafts, conſider what Fruits you are moſt inclinable to propagate. But ſeeing that my intentions are onely to treat of Drinks, I ſhall onely mention here ſuch Apples that are proper for *Cider*, although otherwiſe uſeful, and to be preferred, in ſome caſes, before the other ſorts that are leſs apt for the Mill. *Choice of Fruits.*

Cider-fruit may be divided into three parts: Firſt, Such that are for making early *Cider*, or for the preſent drinking. Secondly, Such that are for making the beſt, rich, Oyly, Spicy, and highly-reliſhed *Cider*, and alſo long-laſting. Thirdly, Such that are uſeful Fruit for the Table, yet making a very pleaſant and acceptable *Cider*.

As for the firſt Claſſis, the *Codlin* is the earlieſt, beſt bearer, and eaſieſt to be propagated: You may graft them on Stocks as you do other Fruits, which will accelerate and augment their bearing; but you may ſave that labour and trouble, if you plant the Cions, Slips, or Cuttings of them in the Spring-time, a little before their budding; *Codlin.*

by which means they will proſper very well, and ſoon become Trees; but theſe are more ſubject to the Canker than thoſe that are grafted.

Theſe, of all the ſorts of Apple-trees, agree beſt in a neer Neighbourhood of their own Species; for ſet them as cloſe as you will, they will thrive, and bear very well: therefore are they fit to plant in Rows, Walks, and Avenues, and make a very graceful and pleaſant proſpect.

It is uſual with ſome to plaſh them to Poles, to make a Palliſade-hedge with them; which is not commendable, becauſe they are pithy Trees, and ill endure to be lopt, thriving beſt when permitted to ſhoot upright, and bear the more. They delight alſo in ſhady Groves or Walks.

Gennet-Moyle. The next is the *Gennet-Moyle*, which delights moſt to grow ſingle from its Company; but as for its being grafted or growing of Sets, it is very much like the *Codlin*. This Fruit makes by far the better *Cider*, and is for preſent drinking, and almoſt equals the beſt of *Ciders*.

There are alſo ſeveral other Summer Fruits that yield very good *Cider*, and fit to be propagated, were they not too pleaſant to the taſte, tempting idle perſons to waſte

waſte the Fruit, and injure the Trees.

Of the ſecond Claſſis, is the *Redſtreak*, which is now the moſt univerſally celebrated for its Juice, of any Apple this Iſland yields: It is one of the ſorts of *Wildings* of *Herefordſhire*, and for the excellency of its Liquor, is now ſpread into moſt parts of *England*. There are ſeveral ſorts of them, the one more red than the other, and is called the *Red-Redſtreak*; another there is that is more pleaſing to the Palate than the former. *Redſtreak.*

The *Redſtreak* is to be preferred for your Plantation to any other Apple whatſoever, eſpecially remote from your houſe. Firſt, Becauſe it yields the beſt of *Britiſh* drinks. Secondly, Becauſe the Fruit is harſh and unpleaſant, not tempting the Palates of lewd perſons. Thirdly, The Tree thrives in as mean Land as any other Apple whatſoever, being a ſpontaneous Plant at firſt. Fourthly, It's a conſtant bearer, being a *Wilding*, enduring (more than the greater part of other Fruit) the ſeverity of the ſharp Springs, ſometimes deſtructive to thoſe that are more tender. Fifthly, The Tree bears in a few years after its grafting, recompencing betimes the induſtry and coſt of the Planter; the delay

whereof in other Fruits, having been a principal obſtacle to the great deſigne of Planting. Sixthly, The Tree is low and humble, and ſo more of them may be planted in a like quantity of Land, than the taller Trees, which ſhade the ground more. Seventhly, The lowneſs of the Trees prevents the ſharp winds in the Spring, and the Fruit of them are not ſo apt to be blown off in the Autumn. Eighthly, This Fruit exceeds all other Apples in the Kitchin, for the time they laſt.

Others there are alſo that are very excellent for this uſe; as the *Elliot*, the *Stoken-Apple*, ſeveral ſorts of *Muſts* and *Fillets*, &c. but all inferiour to the *Redſtreak*.

Pippins and Permains, &c. Of the third Claſſis, are *Pippins* and *Permains*, which make a very pleaſant *Cider*: but of all Table-fruit, the *Gilliflower* and the *Marigold-apple* (ſometimes called *Johns Permain*, the *Kate-apple*, and the *Onion-apple*) are to be preferred, eſpecially mixed, bearing with them the marks, *viz.* a Streaky coat, of good *Cider-apples*. The *Golden-rennet*, the *Harvey-apple*, and the *Queening*, are very good *Cider-apples*.

Choice of Pears. There are ſome ſorts of Land on which Apple-trees will not proſper well, and are more apt for the Pear-tree; as the cold, gravelly,

gravelly, clayiſh, wilde, and ſtony land, on which this Tree, eſpecially the more wilde ſort of *Pear*, will thrive exceeding well. *Perry* being neer of kin, for its excellency, to *Cider*, and the *Pear-tree* far exceeding the *Apple-tree* for its greatneſs and fruitfulneſs; there having been one very lately, not far from *Roſs* in *Herefordſhire*, that was as wide in the Circumference as three men could encompaſs with their extended arms, and of ſo large a head that the Fruit of it yielded ſeven Hogſheads of *Perry* in one year, as I was credibly informed.

The *Choakie Pears* of *Worceſterſhire* and thoſe adjacent parts, or the *Horſe pear*, and *Bareland pear*, and *Bosbury-pear*, are eſteemed the beſt for the Preſs, bearing almoſt their weight of excellent Liquor. The more coloured any *Pear* is, the better.

Plums are not to be rejected from our Plantations of Wine-yielding-fruits, it being preſumed that by a right ordering, they may yield one of the beſt Drinks, eſpecially the *Damſon*; any of them being eaſily propagated, and bear well. *Plums.*

In a good mellow Soil, ſcarce any Tree will yield more of Fruit, than the *Flanders-Cherry-tree*, and that Fruit alſo plenty of *Cherries.*

of a briſk Vinous Liquor; which well prepared, is worthy of your eſteem.

There is great variety of this Fruit, according to which may alſo the like variety of curious Liquors be made.

Gooſeberrits, Currants, Raſberrits.

Of *Gooſeberries*, *Currants*, and *Rasberries*, there is but little variety, the faireſt of either being to be preferr'd, yielding the beſt Juices, and bearing the greateſt quantities of Fruit.

SECT. III.

Of Grafting.

How to chuſe Grafts.

Having reſolved on your Fruit, you muſt ſelect your Grafts of ſuch Trees that are to be grafted from the beſt bearing Trees, and from ſuch Boughs or Sprigs that are moſt apt to bear; and, as a *Virtuoſo* well obſerved, from the Tree, the Spring before its bearing year, if it be a Tree that (as many uſually do) bears every other year.

As for the ſize, let them be but ſhort, with two or three Eyes or Buds at moſt, and thoſe the neerer together, the better. Grafts are uſually cut a little below the Knot or Joynt of the laſt years growth, becauſe the wood is there hard, and the rind thick, to ſhoulder well on the Stock; but

but the ſmalleſt top will grow, though of the laſt years growth onely: yet the Grafts of two or three years growth cut ſhort (& the Buds that are likely to blow broken off) are beſt on large and well-rooted Stocks, where they make the beſt ſhoots, and are not ſo eaſily ſubject to the inconveniencies of the more ſlender.

To keep Grafts. When once the Leaf is wholly off, and before the Tree begins again to bud, Grafts then cut, may be kept until the Spring or Grafting-time, the ends being ſtuck in the ground, and tranſported or carried to any remote place: If the ends be ſtuck in Clay, or in a Turnip, or they bound up in green Moſs, or being wrapped in oyl'd or waxen Leather, the intent being to keep them cool, and from the exſiccating winds; for in froſty and windy weather, Trees taken up and not yet planted, being laid in a Cellar, or ſuch-like place, are preſerved, when otherwiſe expoſed to the wind, though much more cold, are deſtroyed.

Time for Grafting. Although you may graft or inoculate almoſt at any time of the year, either by beginning early in the Autumn, and by preſerving them from the cold, or by keeping your Grafts cut and ſtuck in the ground in the ſhade, to impede their growth

growth in the Spring, and ſo graft them on the ſappy Stocks, or by budding in Summer; yet the principal times for grafting are the months of *January* and *February*, for *Cherries*, *Pears*, *Plums*, and forward Fruits; and *March* for *Apples*. A milde open weather is beſt, and moſt propitious for this work; which if that invite, it is not good to ſtay for worſe.

Yet obſerve, that a Graft ſometimes before cut and ſtuck in the ground, and then grafted at the riſing of the Sap, takes better than thoſe that are grafted ſo ſoon as cut.

Manner of Grafting. Several ways, in ſeveral ages, have been found out for the grafting of one Species of Trees into another, for its melioration; no Hiſtory mentioning its firſt diſcovery, although it has been long practiſed.

Virgil. *Et ſæpe alterius ramos impunè videmus*
Vertere in alterius; mutatamq; inſita mala.

And oft without impairing we may ſee
The Boughs of one graff'd in another Tree.

The moſt common, and, as may be ſuppoſed, the moſt antient way, is the grafting in the Stock; and that is, either by cleaving

ving the Stock, or grafting in the Rinde, or by Whip-grafting.

In the Cleft. Grafting in the Cleft, is to cut off the Stock at a ſmooth place at the height you intend; and if the Stock be ſmall, from one to three inches diameter, then cleave it, that the ſlit may be on the ſmootheſt ſide of the Stock; and fit your Graff, ſhouldering it at a Joynt or Bud, joyning the inſide of the Rindes exactly.

In the Rind. But if the Stock exceed three inches diameter, or thereabouts, the beſt way is to graft in the Rind or Bark, which is done with a Wedge made of Ivory, Box, or other hard wood, made of a flat half-round form, tapering to a point; and force the ſame in between the Rind and the Stock, until you have made the paſſage wide enough for the Graft, the end whereof muſt be cut after the ſame form with the Rind peel'd off, preſerving on as much of the inner Rind as you can, and making the Graft to ſhoulder well on the Stock. Thus may you ſet many Grafts round the Stock; and the more there are, the ſooner will they cover the Stock.

Whip-grafting. If the Stock be under an inch in diameter, then the beſt way is to whip on the Gratts, that is to ſay, if the Stock be bigger

ger than the Graft, then cut the Stock off at the ſmootheſt place, and a little ſloping. Some place the Graff to the upper ſide of the Slope, and ſome to the lower, which is the better way, that the Rind or Bark may cover the ſooner: on which ſide ſoever it be, the Rind muſt be pared away, beginning eaſily, and ſo deeper upwards until you cut to the wood at the top; then pare the end of the Graft accordingly, leaving it with a full and broad ſhoulder to reſt on the top of the Stock, and fit it aptly to the Stock, and bind it on with Hemp, Yarn, Baſſe, or ſuch-like: but if the Graft and Stock be neer of a ſize, then cut the Graft aſlope, and the end of the Stock likewiſe, and binde them together Rind to Rind.

By approach. If the Tree and Stock ſtand neer together, they may be united, by paring away the Rind of both, and binding them together until they are perfectly joyned; then may you cut away the branch that formerly led to the Graft, and leave it to extract its nouriſhment from the Stock.

Luting of Grafts. When your Grafts are placed as they ought in their Stocks, then muſt you apply good Lute or Clay mixed with new Horſe-dung (without the Straw) and well tempered, to prevent chapping; which preſerves

ſerves the heads of the Stocks moiſt, that the Rind or Bark may cover them the ſooner; and defends them from the extremities of cold, wet and drought: but if the Stocks be ſmall, a little Soft-wax well emplaiſtered on them, is eaſier done, and preſerves them better than the other. Always remember to cut the Ligaments off thoſe Grafts you whipt on, about *Midſommer* following.

Some of late have attempted to raiſe Nurſeries or Plantations, by whipping the Graff to a piece of a Root of a Tree of the ſame ſpecies, and ſo to plant it in the ground, a little lower than the grafting place, that the Earth may cover the wound, that the Root may feed the Graff, as the Stock doth in the former ways. Thus with the Root of one *Crab-tree* cut in pieces, may you raiſe twenty or thirty *Apple-trees*. And thus may you unite the Graft to a Stock of a different kind, whereby new Fruits may be produced, and the old meliorated; the wound being within the ground, and not obvious to the extreams of the weather. This only is objected, that the Tree grows but ſlowly, moſt affecting expedition in theſe affairs. *New manner of grafting.*

Several ſorts of Fruits are beſt inoculated, *Inoculation.*

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Inoculation.

Several ſorts of Fruits are beſt inoculated,

ted, and ſome indifferent either way, as *Cherries*, *Plums*, &c. The time for this work, is from the middle of *June*, to the middle of *Auguſt*, as the ſeaſon of the year is either forward or late.

The buds you are to chooſe from Shoots of the ſame years growth; which if by carriage in the Air, or otherwiſe, they are a little withered, you may revive them by ſetting them in water, which will make the buds come the cleaner from the wood.

To prepare the Stock, take the cleaneſt part of the Stock, and cut the Rind athwart, and from the middle thereof ſlit down the Rind neer an inch in length, that both cuts may reſemble a T: then cut off the ſprig out of which you take your bud a little above it, and about half an inch below it, and ſlit the ſhort piece of the ſprig in your hand in the midſt, leaving the bud on one ſide; then with your Quill in form of a Goudge, beginning above the bud, divide the Rind from the remaining piece of the ſprig, ſo that the bud be firm in the Rind; which take, holding it by the piece of the ſtalk of the leaf which is left uncut off; and after you have opened the place in the ſtock by dividing the Rind from the wood gently and not too deep, place in the

the Bud, and close the Rind of it to the Rind above, and the two lappets of the Rind of the Stock over the Rind of the Bud, and bind it over with Woollen-Yarn. Then about a month after observe whether the Bud (over which the Yarn was not to go) be green or not: if it be, then unbind it, and the next Spring cut off the Stock about an inch above the Bud.

Also the slit may be made upwards, and so the Rind at the bottom of the Scutcheon or Bud fitted to the Rind of the Stock below, instead of that above: And it may be performed by cutting a square place in the Stock, and fitting into it a square Scutcheon with the Bud in it, and binding it close.

By Layers or Slips.

Some sorts of Fruits may be propagated by Layers or Slips, as the *Codling*, the *Gennet-Moil*, and the *Creeping Apple*: the *Vine*, *Currant*, and *Gooseberry*, are also propagated by either of these ways.

By Kernels.

Several new and good species of Fruits have been raised by Kernels: but for expedition, certainty, and advantage, the other are the better ways.

SECT. IV.
Of transplanting Trees.

Transplanting Trees. Having raiſed your Nurſery, or otherwiſe provided your ſelf of a competent number of Trees, and ſelected your Ground whereon you intend to plant them; conſider how to diſpoſe of the Trees to your beſt advantage, that is, to plant your tall Standard-Trees in ſuch places where you intend to make uſe of the Land for Graſing, that they may be above the reach of Cattel. But in ſuch places where you can diſpence with the abſence of Cattel, and uſe the Land only for the Sythe or Spade, there it is beſt to plant dwarf or low-grafted Trees, for ſeveral reaſons. 1. You may plant more of them on the like quantity of Land, becauſe the Shadow of the one Tree doth not reach the ground of the other, as that of the tall Trees doth. 2. The low Trees ſooner attain to be Fruit-bearing Trees, and grow fairer than the tall; the Sap in them waſting in its long paſſage, which in the ſhorter Trees expends it ſelf ſoon in the Branches. 3. The lower and broad-ſpreading Tree is the greater bearer, by reaſon the Bloſſoms in the Spring

Spring are not ſo obvious to the bitter blaſts, nor the Fruit in the Autumn to the fierce and deſtructive Winds. 4. Fruit are more eaſily gathered from a low than a tall Tree: beating or ſhaking down Fruit from ſuch Trees, being to be rejected by all judicious Cyderiſts. 5. Any Fruit on a low well-ſpread Tree, is better and fairer than that on a tall Tree, by the ſame reaſon that the Tree is fairer, that is, that the Sap is not ſo much waſted in the low and humble Tree, as in the tall and lofty.

Time for planting Trees.

Although you may remove a Tree any time of the year, and yet ſo that it may grow. But if you deſign to remove your Trees that they may proſper well, and that you may chooſe your time; the moſt proper ſeaſon is at the fall of the Leaf, or when you perceive that the Sap doth no longer aſcend, ſo as to afford nouriſhment to the Leaf; which is uſually about the end of *September*: and ſo you may continue removing all the Month of *October*, and the beginning of *November*, before the more cold weather prevents you: yet if the weather be open, you may remove till the Trees begin to Bud.

Obſervations in tranſplanting.

Before you take up the Tree, it is good with a Marking-Stone, or piece of Chalk,

or ſuch-like, to mark one coaſt of every Tree, either *Eaſt*, *Weſt*, *North*, or *South*, as you pleaſe; that when you plant them again, you may remember to plant that marked ſide to the ſame Coaſt it tended unto before: which was antiently adviſed by *Virgil*,

Quinctiam Cœli regionem in cortice ſignant;
Vt quo quæque modo ſteterit, quâ parte calores
Auſtrinos tulerit; quæ terga obverterit axi,
Reſtituant.

Alſo Heavens quarters on the Bark they ſcore,
That they may Coaſt it as it was before,
Which Southern *heat ſuſteyn'd which view'd the Pole.*

And doubtleſs is very neceſſary in Trees that are large; the ſmaller, or ſuch that have grown in cloſe Nurſeries, being not capable of any conſiderable alteration from any Aſpect of the Heavens.

Here alſo note, That in caſe a Tree, as it ſtands before removal, hath the benefit of the *Eaſt* or *Weſt*-Sun more than of the *South*, then where you plant that Tree, give

give that ſide, that before had that advantage, the like again in its new place: which although it varies from the former poſitive directions, yet not from the reaſon of it.

Fœlix qui potuit rerum cognoſcere cauſas.

Having thus marked your Trees, take them up with as large Roots as you can, eſpecially the ſpreading Roots. Therefore it is beſt to keep the Spade from coming too near the Tree: and when you have ſurrounded the Tree at a good diſtance, endeavour to raiſe as much Earth as you can with the Tree; but if it be to carry far, ſhake it off.

In the planting of your Trees, abate the down-right Roots, leaving thoſe that ſpread: for it is obſerved, that the more the Root ſpreads, the more the Branches; tall Trees uſually extending their Roots deepeſt, as *Virgil* obſerved of the *Æſculus*.

——— quæ quantum vertice ad auras
Æthereas, tantum radice in Tartara tendit.

How much to Heav'n her ſpreading Branches ſhoot,
So much towards Hell extends her fixed Root.

Of thoſe Roots you leave, prune only the ends by cutting them like unto a Hinds foot on the under-ſide, they will put forth new Roots the better.

In caſe Trees have lain ſome time out of the ground, or been carried in the wind that their Roots ſeem to be dry, ſet them over-night in water, immerging only the Roots, and it will very much revive them. Or when you plant them, after you have added an indifferent quantity of Earth, caſt in a Pail or more of Water, as the largeneſs of the foſs requires; which not only quickens the Root, but makes the Earth adhere to the Roots, which otherwiſe would ly light and hollow about them: the Air much incommoding the Root of any Plant whatever.

According to the nature of the ground or depth of the Mold, ſo make your hole more or leſs deep wherein you plant your Tree: if it be a cold or ſpringy ground, then plant neer the ſurface of it, and raiſe the Earth at ſome diſtance round the Tree; but in any ground, plant not too deep: for you may obſerve in many Plantations, Trees thrive beſt where the Roots run neer the ſurface, and not at all where planted deep. The Roots of themſelves naturally tending

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ing either wide or deep, as they find nutriment, although you plant them ſhallow; but if you plant them deep, it's againſt the nature of Roots to tend upwards, although ſometimes it may ſo happen, but rarely.

It is good to dig the hole or foſs deep and wide, and to fill the bottome with good Mold, either the Turf or paring of Land, or well-tempered Street-dirt, or the ſediment of haſty Currents that ſettle in bottoms of Pools or Ditches, or rotten Vegetables, or burnt Earth, or any thing that will either mend or alter the ground, and that is proper for your Trees: fill it to ſuch a convenient height, that you may plant your Tree on the top of it; and then adde good Mold about the Root, and dilute it with Water, as before is directed. Then level the Earth about the Tree, ſo that it may not be too high to injure the bark of the Tree, and ſo that the water may rather fall towards, than from the Tree.

If you plant Standards, and in an open place, it is convenient to ſtake them the firſt year, ſo that you be careful to prevent galling them, by interpoſing a ſmall wiſp of Hay between the Tree and ſtake, and planting the ſtake leaning towards the coaſt you expect the greateſt Winds: but the continu-

ing the Stakes for ſeveral years, ruines many a good Tree, for the Tree will expect it always after; which weakneſs in a Tree may be remedied by lopping of it, and then let it ſtand without ſtaking, and it will gather greater ſtrength in the ground than before.

Prune the Heads of ſome ſorts of Trees that have but ſmall Pith, as *Apple-trees*, *Pear-trees*, &c. when you remove them, to proportion the Branch and Root as neer as you can: but *Wallnut-trees*, *Cherry-trees*, *Plum-trees*, &c. that have a large Pith, are not to be top'd, onely ſome of the Side-branches may be taken away.

Plant all Trees as neer as you can into a better Mold than the place you remove them from; but if you cannot obſerve this, yet mend the Earth in the Foſs wherein you plant your Tree, that it may by degrees be inured to a worſe Soil.

If you have a deſire to remove a Tree in the Summer-time, that you cannot obtain at any other more convenient Seaſon, take of the Earth you digged out of the Foſs you intend to plant your Tree in, and mix and temper it well with an equal part of Cow-dung, and as much Water as will make it into a liquid Pap; fill the Hole almoſt

moſt with this, and then let the Root of the Tree gently ſink into it; cover it over with dry Earth or Turf: This Tree will proſper very well.

As for the diſtance of Trees, it ought to be according to the nature of the Tree and Soil. If it be a large ſpreading Tree, and a rich Soil, forty foot is a good diſtance; if a *Redſtreak* or ſuch-like dwarfiſh ſhort-liv'd Tree, twenty foot is enough between them, eſpecially if the ground be but indifferent.

Always obſerve, that the greater the diſtance, the better the Sun meliorates the Fruit; and if the ground be good, the better do the Trees thrive; and the poorer or drier the ground is, the Trees being thick, the better they ſhadow it, and the more do the Trees proſper.

If you deſigne a Plantation of many ſorts of Fruits in one Plot, then may you plant your *Apples* and *Pears* the farther apart; and between them, or in ſubordinate rows by them, may you plant *Cherry-trees*, *Plum-trees*, and ſuch-like; and next unto them *Filberds*, *Currants*, *Gooſeberries*, &c. ſo that if ever the greater Trees ſpread far, by that time the leſſer may be decayed: if thoſe do not, theſe may be renewed that

that no part of the Plot may be fruitleſs.

In caſe any Tree happen to decay, having ſtood long in that place, ſo that its Roots have attracted and exhauſted the ſtrength of the Earth appropriate to that Species of Fruit; In the room of ſuch Trees remember to plant one of another Species, as an *Apple-tree* in the room of a decayed *Cherry*, *& ſic de cæteris*; by which means the Roots of the latter Tree ſhall finde new matter to maintain their Plant, that was not exhauſted by the former; moſt Land being weary in time of one Plant.

Of Pruning Trees. After your Trees are planted, if you deſigne them for dwarf or ſpreading Trees, then as they ſpring, and are apt to mount upwards, with the Nails of your fingers may you nip off the tops of the aſpiring Branches; which makes the ſide-boughs ſpread the better, checks the Sap, and thereby cauſes the Tree to Fructifie the ſooner, and the better. This way of pruning in the Summer, is eaſier and better for the Tree than in the Winter, becauſe the Sun heals the wound whiles the Branch is tender.

In pruning Fruit-trees, be cautious of cutting off the ſmall Sprigs, which are the more

more apt to bear Fruit; it being too uſual for ignorant Planters to beautifie their Trees by taking off theſe ſuperfluous Branches, as they term them, whereby they deprive themſelves of the Fruit.

After your Trees are planted and pruned, it's good to keep the ground open about them, by digging or plowing it yearly, which conduceth much to the advancement of the growth of them, and their preſervation from Moſs and other Diſeaſes. This is a Winter-work: anſwerable unto that, in the Summer may you ſpread Fearn or other Vegetables about them, eſpecially whilſt they are young; it preſerves their Roots cool and moiſt: both which ought to be done at a good diſtance from the Trunk; it being a vulgar errour to dig or ſoil neer the Tree onely, the former being of little effect, the latter injuring the Bark; for the Roots that gather nouriſhment, and feed the Tree, are thoſe that are fibrous and remote, ſeeking new and freſh nouriſhment, the greater being onely for conveyance of it to the Trunk.

SECT.

SECT. V.

Of the Propagating the Vine.

Virgil. *Altera frumentis quoniam favet, altera* Bacchо;
Denſa magis Cereri, *rariſſima quæq;* Lyæo.

Since one Corn beſt affects, the other Vines;
To Ceres *ſad, to* Bacchus *thin inclines.*

Soil for the Vint. A rich light ſandy grouud agrees beſt with this noble Plant: if the bottom be Chalk or Gravel about two foot under, it's not the worſe; if it incline much to Brambles, it will be kinde for the Vine, the flouriſhing of that Plant being a true mark of the aptneſs of the ground for this. The richneſs of the Soil is not ſo much to be deſired, as the heat and drineſs of it; for a ſhort Vine, and full of Knots or Joynts, is moſt prolifick, and fitteſt for our Climate.

Scituation of the Vineyard. Bacchus *loves the Sunny Hills*, ſays *Virgil.* The declivity of a Hill towards the *South* is much to be preferred to a level; a little to the *Eaſt* or *Weſt* is not bad: if it be defended by Hills on the *North* and *North-Eaſt* Coaſts from the ſeverity of thoſe Winds,

Winds, it will much adde to the early maturity of your *Grapes*. Alſo, a lofty Scituation is not ſo much infeſted with Miſts, Fogs, and cold Dews, noxious to the *Grape*, as are the lower grounds; and enjoyeth more of the benefit of the Sun, and is drier; which is very advantagious in maturating this Fruit, not at all affecting moiſture.

Preparation of the Ground for the Vine.

The Ground being turfie, and having not been lately broken up, may be burnbeat in *June* or *July*, which will much inrich and highten the Land; as is now practiſed in remote Countries, and was in former Ages, elſe *Virgil*, as to barren Land, would not have ſaid,

—Sæpe etiam Steriles incendere profuit agros,
Atque levem ſtipulam crepitantibus Urere flammis.

To burn dry Stubble, and the barren Fields
In crackling flames, oft handſome profit yields.

Then in *December* or *January* trench in the Aſhes of your burnt Land, which may be ſpread in the beginning of the Winter, before

before any great Rains come, leſt they waſh in the ſalt or richneſs of them into the ground onely under or neer the heaps, and ſo make the ground unequally fruitful.

Be ſure to make your Ranges from *Eaſt* to *Weſt*; for the Sun will the better ſhine in between the Plants in the former and latter part of the day, and at noon in the Summer-time the Sun will ſhine over the Ranges; ſo that they will enjoy the benefit of the Sun all the day by this means.

Sorts of Vines. Having thus prepared your Ground, make choice of the beſt ſorts of *Grapes* that are moſt ſuitable to this Country, of which the early *White Muſcadine* is eſteemed the beſt; but there are ſeveral other ſorts, as the *Parſley-grape* which is early ripe, the *Muſcadella* a white Grape not ſo big as the *Muſcadine*, the *White Frontiniaque*, the ſmall black Grape, by ſome called the *Cluſter-grape*, by others the *Currant-grape*, and the *Red Frontiniaque:* Alſo there is a *New White Grape* ripe before any of theſe, which grows in his Majeſties Garden at St. *James's*, which Mr. *John Roſe* highly commends for a Vineyard.

Choice of Sets. Any Cuttings almoſt of the Vine will grow in a cool moiſt Ground; therefore it is

is good to raiſe a Stock of them beforehand, againſt the time you plant your Vineyard. Alſo cuttings of Vines that have a little of the old wood on them, will eaſily grow where you intend to place them for good; but Layers are the moſt certain.

The manner of planting them.

Mark your Ranges, that they may be about three Foot diſtance the one from the other, and dig a Trench for every Range about a Foot wide, and a Foot deep, clean in the bottome, and upright on the ſides; Then fit your Plants, Layers, or Sets of Vines, ſo that you leave not above two or three eyes of the young wood upon them; Then Plant them about two Foot apart in the bottom of the Trenches, ſo that the Roots lie acroſs the Trenches; then cover them three or four inches with the Mould, that the top of the Sets may be even with the edge of the Trench: then cover the Plants all along in the Trenches with Litter or Stubble of a reaſonable thickneſs, to preſerve them from dry and piercing Winds, and from parching Heat; all which are injurious to them the firſt year of their planting: be ſure to leave the tops of the Plants uncovered.

After

To Dreſs, Prune, and Govern the Vineyard.

After they are thus planted, they require your care in *Hawing* them conſtantly, to prevent the weeds from ſeeding; and to raiſe the looſe Earth about your youug Plants by little and little, as you paſs by them.

The firſt Pruning is to be in *December* or *January* next after your planting; at which time you muſt cut off all the young Shoots cloſe to the old Set, except only one, which you muſt leave, and which ſhould alſo be the ſtrongeſt and moſt likely to proſper; and to that likewiſe ſhould you leave but two or three Knots or Joynts.

In *May* following, when the Vine buds, then rub off all the young Shoots or Suckers, ſave only ſuch that come forth of the Joynts of the young Wood you left in *January*; and continue your *Hawing*, to preſerve your Vineyard free from Weeds, adding ſtill freſh Earth to your Plants as you paſs by them.

In the Winter following, Prune your Vineyard as you did the laſt, leaving ſtill the beſt Branch or Shoot to each Plant, and about three or four Joynts or Knots. This ſecond Winter dig your Vineyard, and lay it all level, being careful that you touch not any of the main Roots of your Vines with your Spade.

In

In this third Summer, your Vines will begin to bear; to which end you must provide Props of *Hazel*, *Ash*, or *Oak*, about four Foot in length, placed behind your Plant. *Propping of Vines.*

In *May* rub off all the Suckers, leaving only such as proceed from the Knots of the last year, and that are likely to bear Fruit. Then those Shoots that come from those Knots, bind to your Props; and when the Fruit is of about the size of *Raddish*-Seed, nip off the Branches about a span above it with your Fingers, which is much better than to cut them. And in the heat of the day, for then their wounds will the sooner heal.

The fourth year observe the same method, for then may you expect the compleat fruit of your labour; remembring that in every Winter you leave but one, and that the strongest Shoot or Branch for a Standard, and not above four or five Foot high, cutting all the rest close, unless you find any that are very strong, to which you may leave three or four Knots or Joynts, that the Branches that proceed from them (at least the strongest) may serve for Standards for the ensuing year. So that the Exchange of old for new Shoots, may

very much advance the encreaſe of your Fruit.

You may bind them with ſmall and tender *Oſiers*, or the Rind of the *Willow*, ſuch as you can moſt eaſily obtain.

In *Auguſt*, when the Grapes begin to ripen, nip off ſuch Shoots and Leaves as too much ſhadow them, yet leaving a thin skreen of Leaves to preſerve them from the ſcorching Sun, the cold Dews, and the cool Breezes.

Remember yearly to cut off the old, and advance the new Shoots, and to tie them to the Props about half way from the Ground; and then turn the top of your Vine to the next Prop, and tie it to that, and ſo ſucceſſively, which will reſemble a Row of Arches.

Of Manuring or Dunging the Vineyard.

As you find your Ground to degenerate and grow poor, which moſt hot Land is apt to do, you muſt ſupply it with Manure, which muſt be good rotten Dung, and mixt with Lime if you can, laid and ſpread over your Vineyard, that it may lie all the Winter, that the Vertue of it may be waſhed into the Earth to the Roots of your Vines; and then dig it in in the Spring, when you dig your Vineyard; but by no means let not any new Dung come

come near your Vines, which will too much dry up and burn your Land, and is injurious to all Fruit-bearing Trees, as we before obſerved: which labours of raiſing young Branches from the old Roots, and renewing and amending the Mold by ſtercoration, reiterate and continue for many years.

Of pruning the Vine againſt a wall.

Many perſons have opportunities to plant Vines againſt Walls, Houſes, Barns, *&c.* which will not only bear much more of Fruit, but more early ripe, having many advantages above the open Vineyard. For the pruning of which Trees, obſerve, that on every Sprig you cut off in your Winter-pruning, where you would have Fruit the ſucceeding year, you leave two or three Buds: for out of thoſe Buds, eſpecially the ſecond or third, proceeds the Cluſters. Alſo obſerve to cut off the Branch aſloap on one ſide, or under, that the Rain reſt not on the Pith of the remaining part of the Branch; the Rain oftentimes periſhing the Pith to the lowermoſt Bud. And forget not to leave every year ſome new Branches or Shoots, and to cut off ſome of the old: renovation of the Branches being in this Tree very neceſſary, eſpecially if it be old.

To cure the bleeding of the Vine. If the Vine be cut late, it will be apt to bleed, by which in warm and moiſt weather it looſeth much of its Sap or Blood, although in cold or dry Weather it ſtops, and no great injury to the Tree, it ſtoping of its own accord, the wound of its ſelf healing, when the forwardneſs of the Spring hath thickned the Sap; unleſs ſuch wounds or bruiſes be great, and happen to your Vine about the end of *March*, or in *April*, then they are dangerous: to cure which, if it ſhould ſo happen, you muſt dig at ſome diſtance round the Root of your Vine, with caution not to impair the Root; and caſt in a good quantity of cold Water, which not only checks (by its ſudden coldneſs) the too liberal riſe of the Sap, but plentifully ſupplies the waſt that is made of the Sap or Blood (which the ſpreading Roots with difficulty before had attracted) until the increaſe of the Spring thickens the ſame.

Currants. This Tree is very eaſily propagated, and delights in a good free Land, and will proſper and bear very well, if the Ground under it be kept free from Weeds and other vegetables, and ſometimes digg'd.

There is hardly any Tree delights more in the Shade than this: even under the drips

drips of Trees will it proſper very well. But againſt the North-wall of a Houſe, or other high wall, it will proſper exceedingly, and aſpire to neer fifteen Foot high, and ſpread very broad, being tacked as other Fruit-Trees uſually are; and bear very fair and good Fruit, much better than in Standards or in the Sun.

Theſe are eaſily propagated, as are the *Currants.* *Gooſeberries* *Raiſins.*

This Fruit delights in the Shade; and the colder the ſoyl, the better will this Tree thrive and bear in it.

Thus having given you ſome more than ordinary Obſervations and Experiments for the Raiſing, Grafting, Tranſplanting, Pruning, and renewing your Orchards, Plantations, and Vineyards, with theſe ſorts of *Cyder* and Wine-Fruit-bearing Trees, we will conclude with a tranſlate of *Rapinus*, a little variated.

From Planting new, and Pruning aged Trees,
The prudent Antients bid us never ceaſe.
Thus no decay is in our Vineyards known,
But in their honour we preſerve our own.

Thus in your Orchards other Plants will riſe,
Which with your Nurſeries will yield ſupplies
That may again your fading Groves renew.
For Trees, like Men, have their Succeſſions too.

SECT. VI.

Of the Diſeaſes of Fruit-Trees, and their cure.

Vegetables, as well as Animals, have their Diſeaſes and Infirmities, which not only weaken, but totally deſtroy them; which more uſually aſſault the Fruit-bearing Trees more than any other; and the finer and better any Fruit is, the more is its Tree ſubject to theſe Diſeaſes and Infirmities;
The Canker. The chief whereof is the *Canker*, which aſſaulteth the beſt Fruit-trees, as of Apples the *Pippin*, *Golden Rennet*, &c. of Pears the *Wardens* of all ſorts, *Burgamet*, &c. *Cherries* and *Apricocks*, penetrating the midſt of the Branches, and ſometimes deſtroying the whole Tree. This Diſeaſe happens from ſeveral cauſes, as from the twiſting or bruiſing a Branch or Limb (which

(which uſually happens in Wall-trees, by plying them to the Wall) and ſomewhat reſembles the Windſhake in an Oak; the cure whereof is to cut off ſuch Branch: alſo galling the one Limb againſt another, which you may prevent by pruning, and cure by cutting off the parts affected. But that Canker is the moſt inveterate and uncurable, that proceeds from the Soil; as either being too rich,

For as a Tree due nouriſhment may want, Rapinus.
So too rich Soil deſtroys the tender Plant,

which if you know not how to ſterilize, then obſerve what ſorts of Fruit are free from that Diſeaſe in that ground, (for all ſorts of Fruit-trees are not ſubject to it in any ground whatſoever) and propagate them onely.

Or by being too light; for Trees planted on heavie or ſad Land, are not ſo prone to this Diſeaſe, as in light and warm Land; which may be corrected by abating much of the Earth about the Roots of the Trees, and applying cold, ſad, and heavie dirt or ſettlings in Ponds about them, and by cutting off the cankered Branches. This by Experience hath cured cankered Trees,

and may as well prevent the Diſeaſe.

The raiſing of Stocks from *Crab-kernels* in the ſame Land, and grafting on them, is a good prevention of this Diſeaſe; for this Stock doth better digeſt the ſweet and luſcious Juice that cauſes this Diſeaſe, than the ſoft and ſpungy *Apple-ſtock*; to whom alſo the Juice is more homogeneal, than to a ſtranger, removed into it out of a more barren Soil. Vain therefore are all the Cuttings, Parings, Slicings, Emplaiſtrings, and Applications that are voluminouſly preſcribed for the cure of this Diſeaſe.

Suckers. From the Stock uſually ſpring many Suckers, which extract too much nouriſhment from the Tree; which muſt be taken off dextrouſly from the Root, and may be prevented by grafting on good Stocks raiſed from Kernels; for Trees proceeding from Suckers, are always ſubject to this Diſeaſe.

Bark-bound. If Trees are Bark-bound, it either ſignifies that the ground is hard and bound about the Roots of them, or that they are planted too deep: The remedy then is known onely with this addition; That you may ſlit the Bark down with your Knife, about the Spring-time.

Moſs. Cold, and untill'd, and unmanured Land, often-

oftentimes produce Moſſie Trees; which by digging, or conſtantly applying Vegetables at the Roots of your Fruit-Trees, may be prevented. The ſame alſo may, in ſome meaſure, be rubbed off with a Hair-cloath after Rain.

Fruit ſuffers much from Snails, which *Snails.* are to be taken off in moiſt weather, mornings and evenings; but moſt to be deſtroyed in the Winter, by Boards, Tiles, or ſuch-like, ſet hollow againſt Walls, Pales, or the Stems of Trees, under which they will reſort for ſhelter; whence you may take them by heaps.

Deſtroy the Webs or breed of Cater- *Caterpillars.* pillars in the Spring, and burning them.

Although the Birds deſtroy much Fruit *Birds.* when ripe, and are to be ſcared away and deſtroyed, as every one knows, yet they do not that injury as the Bulfinch doth at the Spring to the Buds of ſeveral ſorts of Trees, as the *Sweet Apple-tree*, all ſorts of *Plums*, *Currants*, &c. which by Birdlime are taken, and your Trees ſecured, or elſe deterr'd by a dry Hawk perching in the midſt of the Tree.

There are many other Diſeaſes and Infirmities incident to Fruit-trees and Fruits, but theſe are the principal and moſt injurious, and moſt difficult to cure. CHAP.

CHAP. V.

Of making Cider *and other Liquors of Apples and other Fruits.*

SECT. I.

Of gathering and preparing Apples, &c.

AFter you have thus brought your Plantation to perfection, that you can gather Fruit enough of your own to make *Cider* or other Liquors, according to the nature of the Fruit; the firſt thing to be conſidered of, is its Maturity; there being much *Cider* ſpoiled in moſt parts of *England*, through that one general errour of gathering of Fruit before its due Maturity. For there is ſcarce any Fruit in the world, but yields very different Liquors, according to the different degrees of Maturity of the ſame Fruit. As the Juice of the *Coco-nut* whilſt green, is a pleaſant thin Drink, but when through ripe, becomes a rich Oyl or Milk: So the Juice of our *European* Fruits which, when moſt mature, yields a pleaſant

Of the ripeneſs of Fruit.

ſant Drink; if preſſed before, yield but a crude and ſowre Liquor.

This errour or neglect (occaſioned partly becauſe the ſeveral ſorts of Apples ripen not at the ſame time, or that the Wind prevents their hanging long enough on the Trees, or the groſs ignorance of the Operatour, or his covetouſneſs of having more Liquor than otherwiſe he ſhould expect) hath not onely been the occaſion of much thin, raw, phlegmatick, ſowre, and unwholſome *Cider*, but hath caſt a reflection on the good report that *Cider* well made moſt rightly deſerves.

Therefore, in caſe your Fruit be not ripe all at one time, ſelect ſuch ſorts that are of a like degree of Maturity, and according to the quantity of them, and ſo proportion your Veſſels; and you were better make it at ſeveral times, than ſpoil your whole Vintage.

Or if the Winds ſhould beat down many of your Apples, and you are unwilling to ſpoil or looſe them, you may let them lie dry as long as you can before you grinde them, that they may obtain as great a degree of Maturity as they can; and let that *Cider* be throughly fermented before it be barrel'd, according to the Rules hereafter ſet down,

down, and not kept too long, to acquire too much acidity.

Let not any think that they advantage themſelves any thing by mixing unripe with ripe Fruit, or by grinding their Apples too ſoon; for they were better looſe a part of their *Cider*, than ſpoil the whole.

To prevent which ill effect, let your Fruit be through ripe; which is known, Firſt, By the colour of them, if you are acquainted therewith, elſe that may deceive you; ſome Apples appearing brighter before they are ripe, than others when full ripe: the ſame may be obſerved in *Pears*, and eſpecially *Cherries*; ſome ſorts requiring twelve or fourteen days throughly to maturate them after they ſeem to be as ripe as the ordinary *Flanders*. Secondly, By the ſmell, moſt *Apples* and *Pears* caſting a fragrant Odour when ripe, and is a very good ſigne of their maturity, although ſome *Apples* and *Pears* have but little ſmell; but ſuch for this purpoſe are to be rejected. Thirdly, By the blackneſs of their Kernels, which when they are of that colour, it doth ſignifie that the Fruit is inclining to be ripe; for after the Kernels are black, the Fruit ought to hang on the Trees ſome time to perfect their Maturity; the Liquor with-

within them being better digeſted and concocted by the vertue of the Sun on the Tree, than by any Artifice whatſoever afterwards.

On the other hand, be cautious of letting Fruit hang on the Trees too long, leſt they grow pulpy, which ſome Summer-*Apples* and *Pears* are apt to do: it ſo unites the Juice with the fleſhy part of the Fruit, that it is difficult to ſeparate the one from the other.

Gathering of Fruit.

When your Fruits are in a good condition as to Maturity, and the weather fair, then gather them by hand; which if your ſtock be not greater than your number of hands, is a much better way than to beat or ſhake them down; but if your ſtock exceed, then ſhake them down, ſo that the ground be dry. For this purpoſe low Trees are to be prefer'd, as before was obſerved.

If any of your Fruit happen to be broken, lay them by themſelves, an ordinary bruiſe not much injuring the Fruit; but where the ſkin is broken, the Spirits exhale, for the bruiſe begets a fermentation, after which the Spirits firſt riſe, being, where the ſkin is whole, detained.

In ſome parts of *England* their ignorance,

or

or rather lazineſs, is ſuch, that they ſcarce beſtow the gathering of their Fruit to keep for their Table; how then can you expect their care for *Cider*?

Hoarding of Apples. Some do prefer the grinding of Apples immediately from the Tree, ſo ſoon as they are throughly ripe, becauſe they yield the greater quantity of Liquor: They alſo pretend, though erroneouſly, that the *Cider* will drink the better, and laſt longer than if the Apples were hoarded.

But if you intend to have your *Cider* pleaſant and laſting, let them lie ſome time in a heap out of the Sun and Rain, and on a dry floor, on dry Rye, Wheat, or Oaten-ſtraw is beſt, until they have either ſweat out, or digeſted a certain crude Phlegmatick humour that is in moſt of our Fruits: the ſame you may obſerve in Nuts and all ſorts of Grain. The time for this, muſt be referr'd to your diſcretion; ſome preſcribing a month or ſix weeks, others but a fortnight: Be ſure not to let them lie too long leſt they grow pulpy, which will very much incommode your *Cider*, although ſome are of another opinion; *In medio virtus:* from ten to twenty days are the beſt times: the harſher the Fruit, the longer the time.

Let

Let them not lie on a Floor of ill ſavour, nor on Deal-boards, but with Straw under them, leſt they contract an ill reliſh, which an Apple will do in a ſweat: nor let them lie abroad, as ſome will do, except on dry ground, and in dry weather, and covered. Although Rain can do them no more hurt than fair Water mixt with the *Cider*, yet every ſort of Apple will not bear it.

For, from the due time, place and manner of hoarding of the Fruit, is oftentimes the *Cider* very good, which otherwiſe might have proved very bad.

By hoarding only of your Windfalls for ſome time, or until the time that it was expected they ſhould have been Ripe in, doth very much meliorate the *Cider* made of them, which otherwiſe might have been very bad.

Thus when your Fruit is duely ripe, gathered, and preſerved, it is ready for the Mill.

SECT.

SECT. II.

Of Grinding of Apples.

One great impediment in the improveing of this moſt excellent drink, hath been the want of a convenient way of grinding or bruiſing the Fruit. It having been the uſage or cuſtome in moſt places of *England*, where but ſmall quantities of this Liquor hath been made, for the Operators to beat their Fruit in a Trough of Wood or Stone, with Beaters like unto Wooden Peſtles, with long handles. By which means three or four Servants or Labourers might in a days time beat twenty or thirty Buſhels of Apples: ſome part thereof into a Jelly, being often under the Beaters, whilſt other part of the Fruit by its ſlipperineſs eſcapes the Beaters; much of it alſo by daſhing being waſted: yet by this means are made very great quantities of *Cider* in ſeveral places.

But where the Fruit increaſed, that this way became too tedious for the *Ciderift*, the Horſe-Mill was and is ſtill much in uſe, Grinding for the whole Pariſh: That is, by placing a large Circular Stone on edge in a round Trough, made alſo of Stone,

in

in which the Fruit is put, and Ground by the ſingle upright Stone moved round by a Horſe, as the Tanners Grind their Bark; in which Mill may be Ground ſometimes three or four Hogſheads a day; and ſome are ſo large, that they Grind half a Hogſhead at a Grift.

Theſe Mills are very chargeable to make for any one that hath but an ordinary Plantation; and to carry your Fruit to a Pariſh-Mill, and bring back your *Cider*, &c. is troubleſome, if at any diſtance: And the *Cider* made therein, accuſed of an unpleaſant taſte, acquired from the Rinds, Stems, and Kernels of the Fruit which in theſe Mills are much bruiſed.

Some have taken the pains to Grate Apples on a Grater made of perforated *Latten*, ſuch that Houſe-wives uſe to Grate Bread on; Others, to beat them on a Table with Mauls: but theſe ways are to be rejected as idle and uſeleſs, where you have any conſiderable plenty of Fruit.

To remedy the inconveniencies, trouble and expences in thoſe ſeveral ways that have been hitherto uſed, you may erect a Mill, the Ichnography whereof, you have in the following Figure.

The Deſcription of the Ingenio *or* Cider-*Mill in Fig.* 1.

LEt there be two Planks *aaaa*, of about three Foot in length or more, and about ſixteen Inches in depth, in caſe your Cylinder or Roll be but one Foot Diameter, elſe according to the Diameter of your Cylinder, that there be about two Inches above and below the ſame. If your Planks will not bear the breadth deſired, they may be enlarged by addition of a piece of the ſame thickneſs, without any inconvenience. Let the Planks be about two and a half, or three Inches thick, and made to quadrate each to other. Let there be four Mortoiſes in each Plank, as at *bbbb*, for four Tranſomes, to keep the two ſides at an equal diſtance, about half an Inch wider than the length of the Cylinder, that it may have the more liberty to move eaſie without Grating. The four Tranſomes may be pinn'd faſt into that Plank that is next you when you turn, and their Tenons made long at their other ends, that they may be two or three Inches without the other Plank, that they may be key'd

key'd at the farther ſide, the better to take to pieces when occaſion requires.

c Is the Center of the Cylinder: in each Plank exactly one againſt the other, there muſt be a hole for the Axis to run in, which ought to be ſtrengthned with a ſmall Plate of *Iron* or *Braſs*, to prevent wearing.

d d Shews only the Circumference of the Cylinder, which at *e* appears more plainly, being made of ſolid *Oak*, or *Beech*, the dryer the better, and freer from ſhrinking, of about a Foot or eighteen Inches in length; and if a Foot in length, then eighteen Inches in Diameter; if eighteen Inches in lenth, then a Foot in Diameter; after which rate you may vary as you pleaſe. This Roll or Cylinder muſt be turned exactly on its Axis, which muſt be made of Iron of about an Inch ſquare, and fixed through the Center of the Cylinder: then turning it on that Axis, with a turning Goudge and Chiſel, will cauſe it to run true; which is principally to be obſerved. The Axis muſt extend beyond the Cylinder ſix or ſeven Inches at the one end, where it muſt be flatned an Inch or two, with an Eye, that the Hand-wheel may be key'd on there, as at *f*.

This Cylinder after it is placed between

the two Planks in its Frame, muſt be knock'd full of ſmall Peggs of Iron, of about three quarters of an Inch in length, made flat, and tapering like a Wedge, as at *g*. They muſt not ſtand or appear a full quarter of an Inch above the ſuperficies of the Cylinder: for the ſhorter they are, the finer will your pulp or Murc be; and the higher, the courſer: you may place them in ſuch order, that the one may ſtand againſt the ſpace laſt preceding, in a Quincunxial Order; about four or five hundred of them will ſerve for a Cylinder of a Foot in length, and of the like Diameter, and ſo after that rate for a greater or leſſer. Thus will this Cylinder be made rough to Grind your Apples as fine as you pleaſe. Then cut a piece of Wood of the length of the Cylinder, and about a fourth part of its Circumference, hollow almoſt to the Circumferential line of the Cylinder, as at *h*: this piece muſt have a Pin at each ſide neer the upper part of it, as at *i i*, which muſt have holes in the two Planks for them to move eaſie in, as at *k*. The uſe whereof is to keep the Apples cloſe to the rough Cylinder, that they may be throughly Ground; this is alſo govern'd by a moveable Tranſome that extends from the one

Plank

Plank to the other, through the Mortoiſes at *l*, which Mortoiſes are made broad, to admit of Key's to force the Regulator or piece of Wood neerer or farther as you pleaſe.

There muſt alſo be another piece of Wood cut hollow, made to move neerer or farther, as occaſion requires, as *m*, which ſerves as a *Regulator* to keep the Apples from feeding too faſt. This alſo may have ſome Iron Pegs on the under-ſide of it, the better to preſerve the Apples ſteady to their work. Which *Regulator* may be forced neerer or farther by Wedges as the Operator pleaſes.

The prickt lines ſhew the Boards that deſcend from the Hopper or Bin, to direct the Apples to their work.

Note, that the greateſt inconveniency that ever hapned in ſeveral years experience of this *Ingenio*, was, that mellow Apples being Pulpy and light, would ſtick to the Cylinder, that it would much impede the Operation; which is eaſily prevented by making the Cylinder ſmooth, and placing the Pegs of Iron not too neer, but leaving ſufficient ſpaces; that when the Cylinder is wet with the Juice of the Apples, the Pulp may fall from it in its motion; which it will

eaſily do, and the better, if the Pegs be not flat headed: always obſerving, that the diſtances or ſpaces of one Row, may be filled or ſupplied in the next two or three Rows, that the Apple may not wear in Ridges.

By this *Ingenio*, have been Ground very fine, ſometimes four, and ſometimes five Buſhels of Apples in an hour, and with no harder labour, then that two ordinary Labourers may, the one feeding, and the other grinding, hold it, by interchanging, all the day.

But if your Stock be ſo great, that this ſmall and eaſie *Ingenio* will not diſpatch them faſt enough, or that you intend it for a general uſe; Then may you make your Planks the longer, and place two Rolls or Cylinders, each with a handle as the former, the one handle on the one ſide, and the other on the other ſide; which Rolls may be cut in Groves like the Teeth of a Wheel, and made to fall the one Tooth in the other ſpace, according to 4 in the ſecond Figure.

In this form the Center or Axis of the one Cylinder muſt be moveable, by means of pieces in the inſide of the Planks, made to be wedged neerer or farther as occaſion requires,

requires, as *b b* in Figure the ſecond.

Theſe Teeth on the Cylinders when they are moved the one againſt the other, forcibly attract the Apples which are emitted under, throughly bruiſed.

Alſo you may turn thoſe Teeth with a Gouge and Chiſel the other way, as it appears at *c*, in Figure the ſecond, and make rough either by notching or pegging the outward edges of both Rolls, by which means the Apples will be attracted and throughly Ground.

By this *Ingenio* may two Workmen and one Feeder Grind twenty Buſhels of Apples in an hour; always obſerving, that you feed it no faſter than it can well diſpatch them, becauſe it is apt to choak. Many profitable additions may be added to either of theſe ways by the ingenious, but the ignorant contemns any thing that is novel, though nere ſo excellent.

When you bring your Apples to the Mill, as you fill them up, caſt by all ſuch that are green and unripe, rotten, or otherwiſe naught, and all Stalks, Leaves, *&c.* that may injure yoor *Cider*: for it is better to want a ſmall quantity of your liquor, than to ſpoil the whole. *Picking of Fruit.*

Some are of opinion, that Rottenneſs in

the Apple injureth not the *Cider*, but that a convenient quantity of rotten Apples mixt with the ſound, is a great help to the fermentation and clarification of the *Cider*. But I preſume, they mean ſuch Apples onely that have been bruiſed in gathering, ſhaking down, or carrying, which will by lying become rotten, and (the ſkin being whole) be not much the worſe, onely the *Cider* will retain a ſmack of them: yet let me adviſe, that you admit not them amongſt your *Cider* that you intend for keeping, but rather make *Cider* of them for a more early ſpending: for others affirm, that one rotten Apple corrupts a whole Veſſel; which I ſuppoſe is intended onely of the putrid Rottenneſs.

When your Apples are grinding, it is not good to grind them too ſmall, for then too much of the Pulp paſſes with the Liquor; but if they are not too ſmall ground, you will have but little the leſs of *Cider*, (although the contrary be commonly believed) becauſe in the more vulgar way of grinding or beating, much of the Apple eſcapes unbruiſed, unleſs the whole be very much bruiſed.

After your Fruit is ground, 'tis good to let it ſtand 24 or 48 hours, according as your

your time or conveniencie will admit, ſo that it be all together, or in good quantities in large Veſſels; for ſtanding thus, it not onely undergoes one degree of fermentation or maturation, but acquires colour, much commended in *Cider*, and alſo cauſes the leſſer parts of the Apple unbruiſed, eaſily to part with its Juice in the Preſs: although the general advice be, to preſs it immediately from the Mill.

You may leave a paſſage open in the bottom of your Vat, wherein you keep your bruiſed Apples, during the time of its being therein. Some of the *Cider* may ſpontaneouſly diſtill into a Receiver placed under it; or you may have a falſe bottom in the inſide full of holes, that the greater quantity may be had, which may run through ſome Tap or other paſſage into your Receiver.

Which *Cider* ſo obtained, far exceeds that which is forc'd out; as the Wines of *France* that are unpreſs'd, are by much preferr'd to thoſe that are preſs'd; and live Honey that diſtills of it ſelf from the Combs, is much better than that which remains.

The Cider-Preſs.

As for your Preſs, there is no form yet diſcovered that exceeds the Skrew-preſs, of which ſort there are very large, that a Hogſ-

Hogſhead may be preſſed at once; and as ſome report, that a Hogſhead or two runs out commonly before the Apples ſuffer any conſiderable preſſure.

In thoſe large Preſſes, the uſual way is to preſs it in Straw, by laying clean Wheat-ſtraw in the bottom of the Preſs, and a heap of bruiſed Apples upon it; and ſo with wiſps of Straw, by twiſting of it, and taking the ends of the Bed of Straw, with it you go round your heap of Apples, which are to be encreaſed, until by winding round the Straw, and addition of Apples, you have raiſed it two foot or more, as your Preſs will give leave: then apply your Board and Skrew over it, and you may preſs it dry in form of a Cheeſe, which is the moſt expeditious way, and moſt for advantage, of any way yet known; for a ſmall ſingle Mill, after the form before deſcribed, will grinde in one day, as much as a man can well preſs in a good Skrew-preſs in another. Some of theſe large Skrew-preſſes are made of two Skrews, and ſome but of one: but in caſe your ſtock be but ſmall, a leſs Skrew, and of much leſs price may ſerve, made after the form of that in the Frontiſpiece; and in ſtead of Straw, you may have a Baſket or Crib well made, and

and put Straw round it in the inſide, to preſerve the Pulp, which would otherwiſe either run through, in caſe the paſſage be wide, or choak them, in caſe they be narrow; or a Hair-bag placed in a Crib or Frame made under the Skrew, to preſerve the Bag from tearing.

In your preſſing, in caſe you intend not to uſe your Pulp afterwards for the making of *Water-cider*, uſually called *Purre*, then is it beſt to preſs it as dry as you can; but in caſe you reſolve to adde water to your Murc, and to preſs it again, then you need not preſs it too hard; for your *Cider* will then be the worſe, and ſo will your *Purre*: For the laſt ſqueezing is the weakeſt, and makes your *Cider* the rougher; and if any thing will, that gives it a woody taſte, unleſs it be prevented in the eaſie grinding.

SECT. III.

Of purifying your Cider.

As your Veſſel fills under your Preſs, pour it through ſome Streyner into a large Vat, onely to detain groſs pieces of Apple, *&c.* from intermixing in the Vat; from whence moſt preſcribe to tun it immedi-

mediately into the Barrels wherein it is to be kept, leſt its Spirits ſhould evaporate: which is a miſtake; for if a Cloath onely be caſt over the Vat or Tun, it is ſufficient to preſerve it; for there is in it a wilde Spirit, that if detained, will break any Veſſel whatever that you ſhall ſtrictly encloſe it in; therefore to waſte that, is no injury to your *Cider*.

Now when it is in your Tun or Vat, it ought to be there fermented, and in ſome degree purified, and from thence the pure ſeparated from the impure, and ſo Tun'd into the Veſſels wherein it is to be preſerved, that the Dregs may not paſs with it, which will very much incommode your *Cider*.

In order to which, it is to be underſtood, that the juice of ripe Pulpy Apples, as *Pippins*, *Renetings*, &c. is of a ſyrrupy and tenacious nature, that whilſt it is cold, doth deteyn in it diſperſed thoſe particles of the Fruit, that by the preſſure comes with the Liquor, and is not by ſtanding or frequent percolations ſeparable from it; which particles, or flying Lee, being part of the fleſh or body of the Apple, is (equally with the Apple it ſelf, when bruiſed) ſubject to putrifaction: by which means, by degrees, the *Cider* becomes hard or acid; but if it be preſſed

preſſed from other Apples, as *Readſtreak*, *Gennet-moyle*, &c. that more eaſily part with their Liquor, without the adheſion of ſo much of the Pulp, & which is of a more thin body; This Liquor ſhall not be ſo ſubject to reiterated fermentation, nor ſo ſoon to acidity, becauſe it wants that more corrupt part that in the other comes with it.

For *Wine*, *Ale*, *Beer*, and other Liquors, in every degree that they tend to acidity, they become more cleer, by the precipitation, of the more groſs parts that are firſt ſubject to putrefaction by the vertue & heat whereof, the Spirits are chaſed away; & ſo in time, as thoſe corrupt particles were more or leſs in it, is the Liquor ſooner or later become Vinegar.

As *Beer*, whereof *Vinegar* is intended to be made, is never fermented, nor the feces precipitated at the firſt, as it is when it is to be preſerved for drinking. And *Claret-wine* percolated through *Rape*, or the acid *Murc* of *Grapes*, becomes a *White Vinegar*; ſo that the precipitation that is in both thoſe Liquors, happens by reaſon of their becoming acid.

If therefore you intend your *Cider* ſhall retain its full ſtrength and body, and to preſerve it ſo for any conſiderable time, endeavour to abſtract from it that flying

Lee

Lee, or *Materia Terreſtris*, that floats in it (as ſometimes it does in Muſt preſſed from *Grapes*, that hath in it more of an active principle than that from *Apples*) leſt your *Cider* be thereby impaired.

Neither is it to be imagined, that that ſort of *Cider* that is of that tenacious nature as to keep up its Lee, is therefore ſtronger than that which more eaſily lets it ſubſide; any more than that thick ſmall unfermented *Ale*, ſhould be ſtronger than that which hath more of the Spirit or Tincture of the Mault, and well defecated; or that *Wine* ſhould be ſmaller than *Cider* for the ſame reaſon.

Now rightly to underſtand the cauſe of this detention of Lee in the body of the Liquor, you are to conſider, that there are ſeveral ſorts of Fruits that yield a cleer and limpid Juice, as a *Grape*, and a *Common Engliſh* and *Flanders Cherry*, and ſome others; and other ſorts of Fruit that yield a more groſs Juice, as a *Rasberry*, *Black-Cherries*, *Plums*, and ſome others: and that there are ſome Fruits that yield a very thin and clear Juice at a certain degree of maturity; which a little after, when more ripe, it becomes more thick and groſs; as a *Gooſeberry*, *Currant*, and ſome ſpecies of *Apples* and *Pears*. In

In the *Grape*, and *Engliſh* and *Flanders Cherry*, the cauſe that the Liquid part ſo eaſily parts from the more ſolid, may be from the great inequality in the proportion of the parts, the liquid being the more, and overcoming the leſſer: which in the other, *Cherries*, *Rasberries*, and *Plums*, the contrary happens, that much of the Pulp adheres to the Liquor.

Alſo in the other Fruits, as *Gooſeberries*, *Currants*, and ſome *Apples* and *Pears*, by the length of time, a thorow maturation cauſes a ſolution of the more groſs parts, being of themſelves tender, which makes them ſo acceptable to the *Palate*; which in Fruit more inſoluble doth not ſo happen; yet may the Juice of thoſe Fruits that thus may be extracted more pure and limpid, be more excellent, and be preferr'd to thoſe more groſs, as it uſually happens, becauſe of the difficulty of defecation.

One principal help to purify any Liquor, or to provoke fermentation, is warmth, as is vulgarly practiſed amongſt Houſewives, who in fermenting both Bread and Beer, preſerve it warm during that operation. For any liquid Body, wherein fermentation is required, by warmth becomes more thin, that it eaſily admits of a ſeparation of

of the feculent parts; and like unto a glutinous Body, the colder it is, the thicker it is, and doth not ſo eaſily part with its Feces.

By warmth only. As hath been ſometime experienced in *Cider*, by heating a ſmall portion of it ſcalding hot, and caſting it into the Tun on the new Muſt, ſtirring it together, and covering it over, hath cauſed a good fermentation, and ſeparation of its Lee, making it much more fit for preſervation, than if it had been Barrel'd without any fermentation at all. It hath been alſo obſerv'd, that cool Cellars do protract the fining of *Cider*: And that *Cider* expoſed to the Sun, or other warmth, hath more eaſily fermented, and become fine, for the reaſons aforeſaid.

By Iſinglaſs. But to ferment and purify this *Britiſh-Wine*, or any other *Vinous Liquor* effectually, you may take of *Gluten piſcis*, *Water-Glew*, or *Iſinglaſs*, as it is uſually termed, about the proportion of three or four Ounces to a Hoſhead, rather more than leſs; beat it thin on ſome Anvil, or Iron-wedg; cut it in ſmall pieces, and lay it in ſteep in *White-Wine* (which will more eaſily diſſolve it than any other Liquor, except *Vinegar*, Spirits, *&c.* that are not fit to be uſed

uſed in this Work) let it lie therein all night; the next day keep it ſome time over a gentle Fire, till you find it well diſſolved; then take a part of your *Cider*, or ſuch liquor you intend to purify, in proportion about a Gallon to twenty Gallons; in which boyl your diſſolved Water-glew, and caſt it into the whole maſs of Liquor, ſtirring it well about, and covering it cloſe. So let it ſtand to ferment, for eight, ten, or twelve hours, as you pleaſe; during which time, the *Water-glew* being thinly and generally diſperſed through the whole Maſs of Liquor, and aſſiſted by the warmth and pretenuity of it, precipitates a part of that groſs Lee, that otherwiſe would have decayed it, and raiſeth another more light part of it, as a Net carrieth before it Leaves or any other groſs matter in the Water through which it is drawn, and leaveth not any part of its own Body in the purified Liquor, to alter or injure the Subſtance or Taſte of it. Which, when you obſerve that it hath done working, you may draw out at a Tap below from the Scum, or may firſt gently take off the Scum as you pleaſe.

This Liquor thus gently purified, may you in a full Veſſel well cloſed, preſerve a long time, if you pleaſe, or draw it and

bottle it in a few days, there being no more *Lee* in it than is neceſſary for its preſervation.

But if you will have it yet clearer and finer, you may encreaſe your proportion of *Water-glew* to double that proportion before mentioned, and make it thereby perfectly *limpid*; which is but an over-racking of it, and makes it too lean and thin of ſubſtance.

This very way or Method of purification will ſerve in all ſorts of Liquors, and is much to be preferred in the Juices of Fruits, to that vulgar way of making them ferment by the addition of Yeaſt or Toſts therein dipp'd, as is uſually preſcribed; that being but an acid Excitation to Fermentation, all things tending to Acidity being (as much as may be) to be avoided in our operations.

This way alſo is better than the tedious ways of percolation, and racking from Veſſel to Veſſel; which waſts not only the Spirits, but ſubſtance of the Liquor it ſelf, and leaves you but a thin and flat Drink, hardly ballancing your trouble.

Drawing it off with a Siphon. After you have thus purified your Liquor in what Veſſel ſoever, and are unwilling, or cannot well draw it out at a Tap

Tap near the bottom, as is uſual, You may draw it from the feces over the brim of the Veſſel, by a *Siphon* made of *Latten*, or of *Glaſs*, which is the beſt, becauſe you may obſerve by your Eye, what impurities aſcend, and avoid them by raiſing or depreſſing your Inſtrument at your diſcretion. The *Siphon* is after this form, the one end three or four Inches longer than the other, and the hollowneſs of the Pipe according to the uſe you intend to put it into, whether out of a great or ſmall Veſſel.

Liquors thus purified, leave behind them on their ſuperficies, and at bottom, a great quantity of groſs and impure feces; which if from *Cider*, you may caſt on the preſs'd *Murc*, to meliorate your *Ciderkin*, or Water-*Cider*, if you intend to make any.

Theſe impurities, which are in great plenty in pulpy Fruit, and alſo in *Rasberies*, *Currants*, &c. are the principal cauſe of the decaying of thoſe Liquors by their corrupt and acid nature, exciting the more vivous parts to a continual fermentation, as is evident from the effect, and from the breaking of Bottles (wherein this *Lee* remains) on the motion of a Southerly Air.

After your Liquors are thus purified and drawn off, they are to be encloſed in ſome Veſſel for ſome Weeks or Months, according as the nature of the Liquor or your occaſions will permit or require. Before that be done, it will not be amiſs to inſert ſome obſervations concerning Veſſels.

SECT. IV.

Of Veſſels for the keeping and preſerving Cider.

Of Barrels. It hath been no ſmall occaſion of the badneſs of this Liquor, and thereby giving it an ill name, that it hath been uſually ill treated, and entertained (after it hath been indifferently well made) in ill-ſhaped, corrupt, faulty and unſound Veſſels; Vinous Liquors being full of Wild Spirits that eaſily find Vents, through which the Air corrupts the whole remaining Body, and alſo more eaſily, eſpecially the *Cider*, like the Apple, attracting any ill ſavor from the Veſſel. Therefore care is to be taken about the choiſe of them.

It hath been obſerved, that the larger any Veſſels is, the better Liquors are preſerved in them. In ſome forreign Countries Veſſels being made, that one of them will

will contain many Hogſheads of Wine; which being therein in ſo great a quantity, is preſerved much better than if divided into leſſer Veſſels.

Alſo the form of a Barrel hath been found to be very material: although the vulgar round Barrel be moſt uſeful and neceſſary for Tranſportation from one place to another; yet is the upright Veſſel, whoſe Ribs are ſtreight, and the head about a fourth or fifth part broader than the bottom, and the height equal to the Diameter of the upper part, the beſt form to ſtand in a Cellar. The bung-hole of about two Inches Diameter, is to be on the top, with a Plug of Wood turn'd round exactly to fit into it, near unto which muſt be a ſmall Vent-hole, that after the *Cider* is tunn'd up, and ſtopt at the Bung, you may give it Vent at pleaſure; and that when you draw it forth, you may thereby admit Air into the Veſſel. This form is preferr'd, becauſe that moſt Liquors contract a Skin or Cream on the top, which helps much to their preſervation, and is in other forms broken by the ſinking of the Liquor, but in this is kept whole; which occaſions the freſhneſs of the Drink to the laſt.

It is alſo obſerved, that a new Veſſel

made of Oak, tinges any Liquor at the firſt with a brown Colour; wherefore it is convenient thorowly to ſeaſon your new Veſſels with ſcalding water, wherein you may boyl Apple-pumis if you pleaſe, before you put your *Cider* in them; which when ſo ſeaſon'd, are to be preferr'd to any that have been uſed, unleſs after *Canary*, *Malaga*, or *Sherry* Wines, or after *Metheglin*; which will much advance the colour and ſavour of your *Cider*: but Veſſels out of which Strong-*Beer* or *Ale* have been lately drawn, are to be rejected, unleſs thorowly ſcalded and ſeaſon'd as before, which then will ſerve indifferently well, nothing agreeing worſe with *Cider* than *Malt*; for of *Cider* or Water-*Cider*, boyl'd and added to *Malt*, hath been made a Liquor not at all grateful. Small-Beer-Veſſels well ſcalded, are not amiſs: *White* or *Rheniſh*-Wine-Veſſels may do well for preſent drinking, or for a Luſcious *Cider*, elſe they are apt to cauſe too great a fermentation.

Curing muſty Caſk. If your Veſſel be muſty, Boyl Pepper in Water after the Proportion of an Ounce to a Hogſhead; fill your Veſſel therewith ſcalding hot, and ſo let it ſtand two or three days; or elſe

Take two or three Stones or more of Quick-

Quick-lime to ſix or ſeven gallons of Water, which put into a Hogſhead, and ſtop it cloſe, and tumble it up and down till the Lime be throughly ſlak'd.

Glaſs-bottles are preferr'd to Stone-bottles, becauſe that Stone-bottles are apt to leak, and are rough in the mouth, that they are not eaſily uncork'd; alſo they are more apt to taint than the other; neither are they tranſparent, that you may diſcern when they are foul or clean: it being otherwiſe with the Glaſs-bottles, whoſe defects are eaſily diſcern'd, and are of a more compact metal or ſubſtance, not waſting ſo many Corks. *Bottles.*

To prevent the charge of which, you may, with a Turn made for that purpoſe, grinde or fit Glaſs-ſtopples to each Bottle, ſo apt, that no Liquor or Spirit ſhall penetrate its cloſures; always obſerving to keep each Stopple to its Bottle: which is eaſily done, by ſecuring it with a piece of Packthread, each Stopple having a Button on the top of it for that end. Theſe Stopples are ground with the Powder of the Stone *Smyris*, ſold at the Shops by the vulgar name of *Emery*, which with Oyl will exquiſitely work the Glaſs to your pleaſure. *Grinding Glaſs Stopples.*

The onely Objection againſt this way of Cloſure, is, That not giving paſſage for any Spirits, the Liquors are apt to force the Bottles; which in Bottles ſtopt with Cork rarely happens, the Cork being ſomewhat porous, part of the Spirits, though with difficulty, perſpire.

If Glaſs-bottles happen to be muſty, they are eaſily cured by boyling them in a Veſſel of water, putting them in whilſt the water is cold, which prevents the danger of breaking; being alſo cautious that you ſet them not down ſuddenly on a cold Floor, but on Straw, Board, or ſuch-like.

SECT. V.

Of Tunning, Bottleing, and preſerving Cider.

Barrelling of Cider. Having your *Cider* purified and prepared in the Tun, and your Veſſels ſeaſoned and throughly dried, and fix'd in their places, then Tun it up into them until the *Cider* be within an inch or leſs of the top of the Veſſel, that there may be ſpace for a Skin or Head to cover it. Be ſure to leave the Bung open, or onely cover'd two or three days, that the *Cider* may have liberty to finiſh its fermentation; but if it be ſo cleer

cleer that it will not again ferment, and that you are willing or intend to keep it long, put in unground Wheat after the proportion of a Quart to a Hogſhead, which will give it a head ſufficient to preſerve it. This artificial head is onely where an admiſſion of Air may probably be into the Veſſel.

After you have thus cloſed up your Bung, you ought yet to leave open the ſmall Vent-hole onely looſely, putting in the Peg, leſt otherwiſe the wilde Spirit of the *Cider* force a paſſage, as I have known it a week after its tunning to have heav'd up the head of the Barrel almoſt to a Rupture; which by the eaſie ſtopping this Vent, and ſometimes opening it, may be prevented until you finde it hath waſted that wilde Spirit. For the Vulgar advice of barrelling up *Cider* from the Preſs, and then ſtopping it cloſe, is pernicious to this Liquor, many having ſpoil'd it by this means: the Spirits ſeeking for a vent will finde it, and the more they are pent, the longer will they be before they are expended; which vent being neglected by the Ciderift, becomes a paſſage for the beſt Spirits of the *Cider* many times, to its abſolute ſpoiling.

The vulgar opinion of the ſudden decaying

caying or flatning of *Cider*, is to be rejected, ſcarce any Drink being more eaſily preſerv'd than this; and though much of its Spirits be loſt, yet out of its own body, whilſt new, may they be again reviv'd, it ſuffering much more by too ſoon detaining its Spirits, than by too lax a cloſure.

Stopping of *Cider* with Clay, if you deſigne to keep it long, cannot be good, it having ſo ſtrong a Spirit that it will eaſily raiſe it on every *Southerly* Air; nothing being better than a wooden Plug turn'd fit to the Bung-hole, and covered about with a ſingle Brown-paper wet, before you wring it into its place.

Bottling of Cider. Drawing of *Cider* into Bottles, and keeping it in them well ſtopt for ſome time, is a great improver of *Cider*. This is done after it is throughly purified, and at any time of the year: if it be bottled early, there needs no addition, it having Body and Spirit enough to retrive in the Bottle what it loſt in the Barrel; but if it hath been over-fermented, and thereby become poor, flat, and eager, then in the bottling if you adde a ſmall quantity of Loaf-ſugar, more or leſs according as it may require, it will give a new life to the *Cider*, and probably make it better than ever it was

was before, eſpecially if it were but a little acid, and not eager.

When your *Cider* is thus bottled, if it were new at the bottling, and not abſolutely pure, it is good to let the Bottles ſtand a while before you ſtop them cloſe, or elſe open the Corks two or three days after to give the *Cider* air, which will prevent the breaking the Bottles againſt the next change of the wind into the *South*.

Great care is to be had in chooſing good Corks, much good Liquor being abſolutely ſpoiled through the onely defect of the Cork; therefore are Glaſs Stopples to be preferr'd, in caſe the accident of breaking the Bottles can be prevented.

If the Corks are ſteep'd in ſcalding water a while before you uſe them, they will comply better with the mouth of the Bottle, than if forc'd in dry: alſo the moiſture of the Cork doth advantage it in detaining the Spirits.

Therefore is laying the Bottles ſideways to be commended, not onely for preſerving the Corks moiſt, but for that the Air that remains in the Bottle is on the ſide of the Bottle where it can neither expire, nor can new be admitted, the Liquor being againſt the Cork, which not ſo eaſily paſſeth through

through the Cork as the Air. Some place their Bottles on a Frame with their noſes downwards for that end; which is not to be ſo well approved of, by reaſon that if there be any the leaſt ſettling in the Bottle, you are ſure to have it in the firſt Glaſs.

Placing the Bottles on a Frame, as is uſual, or on Shelves, is not ſo good as on the ground, by reaſon that the farther from the earth they ſtand, the more ſubject they are to the variation of the Air, which is more rare in the upper part of a Cellar or other Room, than in the lower; and a few inches will occaſion a great change, unleſs in a Room arched or vaulted with Stone: but where Room is wanting, this inconvenience may be eaſily born withal.

Setting Bottles in Sand is by many not onely made uſe of, but commended, although without cauſe, it not adding that coldneſs to the Bottles as is generally expected, being rather of a dry and temperate quality than cold; if there be any convenience in it, it is becauſe it defends them from the too ſudden changes of Air into heat or cold, which in open and not deep Rooms it is often ſubject unto.

The placing of Bottles in Ciſterns of Spring-

Spring-water, either running or often changed, is without all Peradventure the beſt way to preſerve *Cider* or any other Vinous Liquors. A Conſervatory made where a recruit of a cool refrigerating Spring-water may conveniently be had, will ſo long preſerve *Cider* until it be come to the ſtrength even of *Canary* it ſelf. Bottles let down into Wells of water where Pumps are, that the frequent uſe of Buckets may not injure them; or little Vaults made in the ſides of Wells neer the bottom, may ſupply the defect of Spring-water in your Cellar. The reaſon why Water is to be preferr'd for ſuch a Conſervatory, is, becauſe the cloſeneſs of its body admits not of a ſudden rarefaction of Air, as other Materials do, but is generally of an equal degree of coldneſs, and that colder than commonly the Liquor is that is preſerv'd; which ſo condenſeth its Spirits, that they ſeek not any exition or expanſion, but acquieſce in their own proper body, where they multiply and become more and more mature, by vertue of that innate heat the Liquor received whilſt in its Fruit. *Quære* whether the warmth that is in Wells or deep Springs, in froſty weather, incommode not theſe Liquors?

Alſo

Alſo *Quære* whether theſe cool Conſervatories prevent not the breaking of Bottles ſtopt with Glaſs Stopples, by the condenſing power of the water. My ſelf being deſtitute of any opportunity to make thoſe experiments, cannot at preſent reſolve theſe *Queries*.

In ſome places the conveniencie of Water may eaſily be had for ſuch a Refrigeratory, both for the conſtant ſupply of cool Spring-water, and for its evacuation again, which is as neceſſary as its ſupply: and in many places the Ciderift may command a Spring from ſome place a little diſtant from his Refrigeratory, but cannot ſo eaſily be rid of it again; which muſt be as well conſidered of as the other. Therefore if you can conveniently make a Ciſtern in the bottom or on the ſide of your Cellar that will hold water, either of Stone or Brick well cemented, and if of Brick, plaiſtered with Plaiſter of Paris, or with a Cement made of Linſeed-oyl and Lime newly ſlakned, with a little Cotton-wool beat into it, and can, as occaſion requires, ſupply it with a deſcent of cool Spring-water; your way to evacuate the ſame, will be with a ſmall Hand-pump, ſuch as they uſually uſe in ſmall Veſſels at Sea, and may be had in Mari-

The Forme of the Vessell

a-The Bung hole.
b-a small vent hole.
c-the Tap.

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Maritime Towns at an eaſie rate, with which you may pump your Ciſtern or Conſervatory dry once a week, oftner or more ſeldome, as the warmth or coldneſs of the Air ſeems to require; and ſupply it again from your Spring, or in defect thereof from ſome Well or Pump, whence you draw your Water for other occaſions. But if your Ciſtern be made in the Ground under your Cellar, you need only lay your Brick or Stone in Clay well tempered, and laid thick under the Brick or Stone, and on the ſides of the Ciſtern.

Where you have not the conveniency of Water, or are unwilling to be at the expence, as in ſome places it may require, of making ſuch Conſervatories; there the beſt way is to dig Vaults in your Cellars, under the Level of the bottome, or to make Niches in the Walls near the Ground, and in them place your Bottles leaning: for the more they are remote from the Air, and the more encompaſſed with Stone or Earth, the cooler they will continue, and the leſs ſubject to the inconveniencies that happen from the mutability of the Ambient Air.

To accelerate maturity in your Bottle-drink, you may place them above Stairs in

in ſome Room warm'd by the Beams of the Sun; which will much haſten its maturity, and is eaſier performed than any Agitation can be: but thus it will not long continue, aud caution muſt be had to your Bottles.

Binding down the Corks of your Bottles in caſe of danger, is not ſo much to be commended, as well fitting them in by full Corks; becauſe the Liquor were better fly the Cork than break the Bottle, which muſt be, in caſe the Cork be tyed down, and the Liquor not well qualified.

Boyling of Cider. In many places they boyl their *Cider*, adding thereto ſeveral Spices, which makes it very pleaſant, and abates the unſavory ſmack it contracts by boyling, but withal gives it a high Colour. This way is not to be commended, becauſe the Juice of the Apple is either apt to extract ſome ill ſavour from the Braſs or Copper, we being not acquainted with any other Veſſels to boyl it in, or the feces or ſediment of it apt to burn by its adhering to the ſides of the Veſſel, it being boyl'd in a naked Fire.

But if you are willing to boyl your *Cider*, your Veſſel ought to be of *Latten*, which may be made large enough to boyl

a good quantity, the *Tin* yielding no bad Tincture to the Liquor. The Veſſel alſo ought to be broad and open, for the more expeditious waſting of the aqueous and Phlegmatick part of the Liquor, which firſt flies, in caſe the Muſt be newly taken from the Preſs, and the Apples ripened on the Tree, ground as ſoon as gathered, and preſſed as ſoon as ground: For it is not the boyling only, but the ſudden waſting of the Phlegmatick part, that meliorates the remainder; the Spirits in all Liquors retiring and contracting themſelves before Fermentation, as in all Muſts, and after putrefaction, as in *Vinegar*, and all acid eager Liquors. For obſerve, how much ſoever you waſt in this evaporation of any ſort of Muſt, or new Wurt, by ſo much is that which remains the ſtronger; ſo that you need not be ſo intent to procure Ebullition, as expence of the meaner part of your Liquor. Alſo you may place this *Latten* Veſſel in another Veſſel of Water, or in a thin Bed of Aſhes, to prevent the too fierce heat of the naked Fire; alſo you may keep it ſtirring, which will expedite the Operation. Before it be quite cold, you may ferment or purify it to what degree you pleaſe.

This *Cider* thus boyl'd and purified, to the expence of the one half, will keep very long, and be exceeding rich and ſtrong, and not ſo ill qualifyed, as hath uſually been, in caſe you uſe caution in the operation, which is to be preferr'd to thoſe Spicy Additions.

Reſtoring of decayed Cider.

It many times happens, that *Cider* that hath been good, by ill management or other accident becomes dead, flat, ſowre, thick, muddy, or muſty; all which in ſome ſort or other may be cured.

Deadneſs or Flatneſs in *Cider*, which is often occaſioned from the too free admiſſion of Air into the Veſſel, for want of right ſtopping, and is cured by grinding a ſmall parcel of Apples, and putting them in at the Bunghole, and ſtopping it cloſe, only ſometimes trying it by opening the ſmall vent, that it force not the Veſſel: but then you muſt draw it off in a few days, either into Bottles or another Veſſel, leſt the *Mure* corrupt the whole Maſs; which may alſo be prevented, in caſe you preſs your Apples, and put up only the new Muſt that comes from them on the decayed *Cider*. The ſame may be done in Bottles, by adding about a ſpoonful or two of new Muſt to each Bottle of dead *Cider*, and ſtopping

ſtopping it again. *Cider* that is dead or flat will oftentimes revive again of it ſelf, if cloſe ſtopt, upon the revolution of the year and approaching Summer.

If *Cider* be acid, as ſometimes it happens by reaſon of the immaturity of the Fruit, too nimble an Operation, too great a Fermentation in the Veſſel, or too warm a Scituation of your Veſſels wherein it is kept; this ſometimes becomes pleaſant again, in caſe its Lee be yet in the Veſſel, as is ſuppoſed by a ſecond operation on it, but in caſe it doth not, if you add about a Gallon of unground-Wheat to a Hogſhead of it, it will very much ſweeten it, and make it pleaſant. The ſame effect will two or three Eggs put in whole, or a pound of *Figgs* ſlitt, produce, as is reported. But the ſureſt remedy is Botling it with a Knob of *Sugar*, in proportion according to the occaſion.

There is ſome difference between a ſharp or acid *Cider*, and a *Cider* that is eager or turn'd. The firſt hath its Spirits free and volatile, and may eaſily be retriv'd by a ſmall addition of new Spirits, or ſome edulcorating matter; but the latter hath part of its Spirits waſted, and part retired, that all additions are vain attempts to recover it.

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If your *Cider* be Muſty, which happens either from the places the Fruit lay in before Grinding, or from the Veſſels through which the Pulp or Muſt hath paſt, or that the *Cider* is contain'd in; the Cure thereof is very difficult. Although in ſome meaſure the ill ſavour of it may be corrected by *Muſtard*-Seed ground with ſome of the ſame *Cider*.

Thick *Cider* is eaſily cured at what Age ſoever, by exciting it to a fermentation, either by the addition of *Muſtard* made with Sack, or by the addition of new Pulp or Muſt, or of rotten Apples; Or (which will do it when all fails) by purifying it with *Iſinglaſs*, or Fiſh-glew, as before is directed.

Racking of *Cider* is much commended by ſome, but the operation tedious, troubleſome, and coſtly, by reaſon of the change of Veſſels of different ſizes, the latter being to be leſs than the former. And therefore not to be endured amongſt true Ciderists, Purifying the Liquor before Tunning, being much to be preferred.

Preſerving Cider by Sulphur.

If the Veſſel before *Cider* be tunned up into it, be fumed with *Sulphur*, it much conduceth to the preſervation of this or any other kind of Liquor: which may be done

done by laying Brimſtone on a Rag, or by dipping a Rag in melted Brimſtone, and by a Wire letting it down into the Veſſel, being fired, will fill the Veſſel full of ſmoak; then take it out, and immediately tun up your Liquor, which gives it no ill taſte nor ſavour, and is an excellent preſerver of your health, as well as of the Liquor.

But the better way for this operation is, by making a little Earthen pot wherein to burn your Brimſtone, the cover of it to extend in a Pipe about two Foot for your Mouth, and another Pipe to go out of the ſide of the Pot into the Bung-hole of the Veſſel, in which the *Cider* is put to be preſerved: about half way deep into the Liquor, put your Rags dipp'd in Brimſtone, into the pot, add Fire to it, cover your pot, blow at your Pipe, which will encreaſe the Fire, and drive the Fume into the middle of the Liquor in the Barrel, and alſo fill the Vacancies of the Veſſel; Then ſtop it cloſe, by which means the *Cider* is impregnated with the Spirit of *Sulphur*, which will give it no alteration, ſave only for its ſalubrity and duration.

It is evident, that *Cider* by time changes its greeniſh Colour, for a bright yellow, inclining to redneſs.

SECT. VI.
*Of making Water-*Cider.

It is obſerv'd that many ſorts of Apples thorowly mature, will endure ſome addition of Water, without any prejudice to the Drink, eſpecially in the Iſland of *Jerſey*, where they frequently give it a daſh. This dilution is only with Apples of a mellow and rich Juice, and is neceſſary to help its clarification; the *Cider* it ſelf being of too glutinous a ſubſtance, and they not acquainted with any other way of attenuating it.

To ſome ſorts of Fruit that are of themſelves acid, crude, or of a thin Juice, dilution is very improper; but if the Water be boyl'd, and let ſtand till it be cold, it will be the better; that abating much of its crudity.

Water mixt with the Fruit in the Grinding, incorporateth better with the *Cider*, than if added in the Veſſel; and if mixt in the Veſſel, better than if added in the Glaſs. By the Addition of Water can no other advantage be expected than the encreaſe of the Liquor, as we uſually make more Small Beer than Strong, of the ſame quantity

quantity of Malt, for the ordinary expence in Oeconomy.

Of making Ciderkin or Purre.

After you have preſſed out your *Cider*, you may alſo put the *Murc* up into a large Vat, and add thereto what quantity you think convenient of boyl'd Water (being firſt cold again:) if about half the quantity of the *Cider* be preſſed from it, it will be good; if as much as the *Cider*, then but ſmall: let this Water ſtand on it about forty-eight hours, and then preſs it well. That which comes from the Preſs, Tun up immediately, and ſtop it up, you may drink it in a few days. This being the moſt part Water, will clarify of it ſelf, and ſupplies the place of Small-Beer in a Family, and to many much more acceptable.

You may amend it by the addition of the Setling or Lee of your *Cider* that you laſt purifyed, by putting it up on the Pulp before preſſure, or by adding ſome overplus of *Cider*, that your other Veſſels will not hold, or by Grinding ſome falling or refuſe Apples that were not fit to be added to your *Cider*, and preſſing it with this.

This *Ciderkin* or *Purre* may be made to keep long, in caſe you boyl it after preſſure, with ſuch a proportion of Hops as you uſually add to your Beer that

you intend to keep for the ſame time, and it will be thus very well preſerv'd; but then you need not boyl your Water before the adding it to your Murc.

SECT. VII.

Of Mixtures with Cider.

There is not any Liquor that hath leſs need of Mixtures than *Cider*, being of it ſelf ſo excellent, that any addition whatſoever maketh it leſs pleaſant: but being ſo neceſſary a Drink for the preſervation of health, and tending to Longævity, it may be the moſt proper Vehicle to transfer the vertues of many *Aromatick* and *Medicinal Drugs*, *Spices*, *Fruits*, *Flowers*, *Roots*, &c. into every part of man, beyond any other Liquor whatſoever.

With it may be made *Juniper-Cider*, by the addition of the *Berries* dried, ſix, eight, or ten to each Bottle in the bottling of it, or elſe a proportionable quantity in the Barrel: the taſte whereof is ſomewhat ſtrange, which by uſe will be much abated.

Ginger may be added with good ſucceſs, it making the *Cider* more briſk and lively than otherwiſe it would be.

Dried

Dried *Roſemary* may be added in the Veſſel, and doth not make it very unpleaſing.

Wormwood imbib'd therein, produceth the effect that it doth in *Wine*.

The Juice of *Currants* preſerv'd ſimply, without any Sugar or Water, a few of the cleer drops of it, tingeth and matureth early *Cider*, which to ſome might otherwiſe ſeem too luſcious.

The Juice of *Rasberries* preſerv'd, or the Wine thereof, gives an excellent tincture to this Liquor, and makes it very pleaſant, if the *Cider* be not too new or too luſcious.

For cooling Tinctures to *Cider*, the Juice of the *Mulberry* is to be preferr'd.

And next to that, the Juice of the *Blackberry*; both ripening about the time of making *Cider*.

Elder-berries are much commended by ſome to be preſſed amongſt your Apples, or the Juice of them added to your *Cider*.

The *Clove-July-Flower* dried and ſteep'd in *Cider*, gives it an excellent Tincture and Flavour.

Thus may the Vertues of any dried Flowers, Leaves, Roots, *&c.* be extracted and

and convey'd into our bodies by the moſt pleaſant Vehicle that can be obtained.

SECT. VIII.

Of making other ſorts of Wines or Drinks of Fruits.

Of making Perry.

Beſides *Cider*, there are many other curious Drinks that may be prepared out of our Britiſh Fruits: As *Perry*, whereof there is a great quantity made yearly in ſeveral places of this Kingdom; and its operation ſo much like unto that of *Cider*, that we need ſay the leſs in this place.

Pears ſhould not be too mellow when they are ground, for then they are ſo pulpy, that they will not eaſily part with their Juice.

If *Crabs* be mixt with *Pears* in grinding, it very much improves the *Perry*; the proportion muſt be with diſcretion, according as the ſweetneſs of the *Pear* requires.

Perry, if well made, and of good *Pears*, will keep equally with *Cider*. The *Boſbury-Pear* is eſteemed the beſt to yield laſting *Perry*.

Although the Planting of Vineyards in this Iſland is not ſo much in uſe as in the more *Southerly* Countries, nor are our ſeaſons

ſeaſons ſo conſtant for the maturation of the Fruit of the Vine, as they are in Continents of the ſame Latitude; yet may we propagate this Plant to a good effect in ſome warm Scituations, and eſpecially on the ſides of Buildings, Walls, *&c.* and where there are any ſtore of them, very good Wine may be made of the great plenty of their Liquor; and much better than any of the French Wines uſually imported here, in caſe caution and ſkill be uſed in its preparation.

When you perceive your *Grapes* to be plump and tranſparent, and the Seeds or Stones to come forth black and cleer, and not clammy, and the Stalks begin to wither, then gather them, for they cannot be over-ripe; neither will Rain or Froſt injure them, ſo that the weather be dry ſome time before gathering. *The time of gathering Fruit.*

Cut them off from the Branches, and not pull them, and in the Moons decreaſe, preſerving them from bruiſes as much as you can.

Here in this cold Country they are ſeldom all of a ripeneſs, and the Stalks contain ſomething of crudity in them; therefore it would not be loſt labour to cull or ſeparate the more ripe from the leſs, and *Making of the Wine.*

from

from the Stalks, before you preſs out your Wine; by which means ſome have had Wine comparable with the beſt French Wines that are preſs'd from the *Grapes* promiſcuouſly; and this *Wine* thus made of ſelected *Grapes*, will laſt ſeveral years, as hath been experienced.

When your Wine is tunned, leave a part of the Veſſel void or empty, and ſtop it up cloſe immediately, and that very well, leſt it looſe its Spirits; which vacancie you may again ſupply after ten or twelve days with other Wine that hath been alſo fermented: which repletion muſt be reiterated as oft as there is occaſion.

Making of Claret. If you intend to make *Claret*, you muſt let your Murc or Chaff abide in the Muſt ſix or eight days, or as you will have it, more or leſs, ruff or tinctured, before you preſs it out; but in the interim be ſure to cover your Vat cloſe.

North-winds are reported to be very bad for the ſowring of Wines; therefore be careful to keep them from it.

Purifying of Wine. To purifie Wine, take the thin Shavings or Planings of *Beech*, the Rinde being peel'd off, and boyl them in water to abate the rankneſs of them; then dry them throughly; and with theſe may you purifie Wine: about

about a peck will ſerve a Hogſhead; which Chips will ſerve often times, being waſhed, dried, and preſerved.

Some meliorate their Wine by preſſing *Raiſons* of the Sun with the *Grapes* a little plumped before-hand, or by boyling half the Muſt an hour together, ſcumming it, and adding it hot to the other half: this meliorates that half that is boyled, and cauſeth a fermentation in the other; but this is left to farther experience.

With well-ripened *Grapes*, diligent ſorting them, eaſie preſſure, and well purifying and preſerving its Juice, *Wine* may here be made in goodneſs and duration equal to the beſt and moſt *Southerly* French Wines that are uſually imported hither, as hath been divers times experienced for ſeveral years ſucceſſively, by one that hath produced excellent *Wine* of ſeveral years preſerving.

For againſt a Wall *Grapes* will ripen very well in moſt years, and the beſt of them ſeparated from the more immature, and from the Stalks, yield a luſcious Juice; and thoſe gently bruiſed yield a thin Muſt that hath of it ſelf but little of the flying *Lee* in it; and that alſo being precipitated or taken off, the Wine will not be ſo apt

to

to ferment; which is the principal cauſe of its ſudden decaying. This *Wine* preſerv'd in your Refrigeratoty, will continue good for ſeveral years; its Spirits thereby multiplying and heightning, that makes it equal to thoſe *Wines* that received a far greater degree of maturation in their Fruit more expoſed to the perpendicular Beams of the Sun.

Cherry-wine. There is ſcarce any Fruit more eaſily propagated than the *Cherry*, nor any Fruit that bears more conſtantly and plentifully: that is a tall and Orchard-Tree, the Fruit whereof yields a fine acid pleaſant Juice, and mix'd with the more fat and luſcious Wines of *Spain*, make a very good Wine, by the addition of Sugar whereby to preſerve it.

Or the Juice it ſelf, gently preſſed from the Fruit, may, by a convenient addition of Sugar, make a very pleaſant Wine, and durable, if boyled together; but in the boyling caution muſt be had, leſt it attract ſome ill ſavour from the Veſſel.

Plum-wine. This Fruit is alſo eaſie of Propagation, and no doubt but ſome of the more juicie ſort of them, eſpecially the *Damſin*, would yield an excellent Liquor, but ſcarcely durable unleſs boyl'd with Sugar, and well puri-

purifi'd, or elſe the Sugar boyl'd before-hand in water, and then added: the Juice of the *Plum* being of a thick ſubſtance, will eaſily bear dilution. This is eaſily experimented where *Plums* are in great plenty.

The *Red Dutch-Currant*, or *Corinth*, yields a very rich and well-coloured Juice, which if ſuffered to hang on the Trees ſix or ſeven weeks after they are red, will yield a Vinous Liquor, which is to be diluted with an equal quantity of water boyled with refined Sugar, about the proportion of one pound to a gallon of your Wine (when mixt with the water) and after the Water and Sugar ſo boyled together is cold, then mix it with the Juice of the *Currants*, and purifie it with *Iſinglaſs* diſſolv'd in part of the ſame Liquor, or in *Whitewine*, as is before directed for the purifying of *Cider*, after the rate of an ounce to eight or ten Gallons; but boyl it not in a Braſs Veſſel, for the reaſons before-mentioned. This will raiſe a Scum on it of a great thickneſs, and leave your Wine indifferent clear, which you may draw out either at a Tap, or by your *Siphon*, into a Barrel, where it will finiſh its Fermentation, and in three weeks or a Month become ſo pure *Currant-wine.*

pure and limpid, that you may Bottle it with a piece of Loaf-Sugar in each Bottle, in bigneſs according to your diſcretion; which will not only abate its quick acidity that it may as yet retain, but make it briſk and lively.

At the time you Bottle it, and for ſome time after, it will taſte a little ſweet-ſowre, from the Sugar, and from the *Currant*; but after it hath ſtood in the Bottles ſix or eight weeks, it will be ſo well united, that it will be a delicate, Palatable, rich Wine, tranſparent as the Ruby, of a full Body, and in a *Refrigeratory* very durable; and the longer you keep it, the more *Vinous* will your Liquor be.

By the letting your *Currants* hang on the Trees until they are through ripe, which is long after they are become red, digeſts and matures their Juice, that it needs not that large addition of Sugar, that otherwiſe it would do, in caſe the Fruit had been gathered when they firſt ſeem'd to be ripe, as is vulgarly uſed, and the common Receipts direct. Alſo it makes the Liquor more ſpirituous and Vinous, and more capable of duration, than otherwiſe it would be, if the Fruit had not received ſo great a ſhare of the Sun.

The

The *Goosberry*-Tree being one of the greateſt Fruit-bearing Shrubs, yields a pleaſant Fruit, which although ſomewhat luſcious, yet by reaſon of its groſs Lee, whereof it is full, it is apt to become acid, unleſs a proportion of Water ſweetned with Sugar (but not with ſo much as the other acid-Liquors) be added unto it; this Liquor of any other will not bear a decoction becauſe it will debaſe its colour from a Wine colour to a brown not pleaſant in Whitiſh Wines or Liquors. *Goosberry-Wine.*

There is no Shrub yields a more pleaſant Fruit than the *Rasberry*-Tree, which is rather a Weed than a Tree, never living two years together above-ground. Nor is there any Fruit that yields a ſweeter and more pleaſant Juice than this, which being extracted ſerves not only to add a flavour to moſt other Wines or Liquors, but by a ſmall addition of Water and Sugar boyl'd together, and when cold, added to this Juice, and purified makes one of the moſt pleaſant drinks in the World. *Rasberry-Wine.*

Having given you a taſte of moſt Wines made by preſſure of the Juices out of the Fruits. You may alſo divert your ſelf with the blood of the Grape or any other of the before-mentioned Limpid Liquors, *Apricock-Wine.*

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ting'd with the flavour and ſpirituous haut-guſt of other Fruits that cannot ſo eaſily and liberally afford you their Juices. As of the *Apricock*, which ſteep'd in Wine, gives the very taſte of the Fruit; alſo *Clove-July-Flowers*, or other ſweet-ſented Flowers doth the like. You may alſo make experiment of ſome ſorts of *Peaches*, *Nectorines*, &c. what effect they will have upon thoſe ſorts of drinks.

Clove-Juliflower-*Wine.*

SECT. IX.

Of making ſome other Drinks or Wines uſually drank in this Iſland.

Beſides ſuch Drinks or Liquors that are commonly made of the Fruits of Trees or Shrubs, there are ſeveral other pleaſant, wholeſome, and neceſſary Drinks, made of Trees, Leaves, Grains, mixtures of ſeveral things, that are not to be omitted or wanting in your Conſervatory to make it compleat.

As *Metheglin* or *Hydromel*, that is prepared out of *Hony* extracted by the diligent Bee out of ſeveral Vegetables, being one of the moſt pleaſant and univerſal Drinks the Northern part of *Europe* affords, and was in uſe among the Ancients

tients that inhabited theſe colder Countries, before Wine or other Vinous Liquors became ſo generally uſed; and is yet in ſeveral cold Countries the moſt excellent Drink that they have of their own making, where Wines and other Vinous Liquors are not ſo eaſily nor well prepared. The Subject whereof it is made, *Honey*, being to be had in every part of *Europe*, from the moſt Southerly parts of *Spain*, *Italy*, &c. to the moſt Northerly. It being affirm'd by *Hiſtoriographers*, that there is *Hony* within the *Arctick*-Circle or Frozen Zone.

Thoſe that liv'd formerly in the more Southern parts (as *Pliny* reports) made a Drink compounded of *Hony* and tart Wine, which they term'd *Melitites*, by the addition of a Gallon of *Hony* to five Gallons of their Wine, making thereof no doubt a very pleaſant Liquor: to which *Virgil* ſeems to allude, when he ſings

Dulcia mella premes; nec tantum dulcia quantum
Et liquida, & durum Bacchi domitura ſaporem.

——— *Honey you may preſs,*
Not only ſweet, but ſhall be purely fine,
And fit to qualify your ſharpeſt Wine.

This Drink was alſo called *Oinomel* by *Dioſcorides*, and others in that Age.

In *Swedeland*, *Muſcovia*, *Ruſſia*, and as far as the *Cuſpian* Sea, they make great ſtore of this Drink, and *Meth*, which is a ſmaller ſort of it, made of the worſt *Honey*, and of the refuſe of all the reſt.

This *Metheglin* or *Hydromel*, they prefer in thoſe cold Countries before any other Drinks, preparing it diverſly to pleaſe their Palates; The beſt receipt whereof that I have obſerved to be made by them is thus.

They take *Rasberries* which grow plentifully in thoſe parts, and put them into fair Water, for two or three Nights (I ſuppoſe they bruiſe them firſt) that the Water may extract their taſte and colour. Into this Water they put of the pureſt *Honey*, in proportion about one pound of *Honey* to three or four of Water; according as they would have it ſtronger or ſmaller. Then to give it a fermentation, they put a Toſt into it dipp'd in the Dregs or Grounds of Beer; which

which when it hath ſet the *Metheglin* at work, they take out again, to prevent any ill Savour it may give; if they deſire to ferment it long, they ſet in a warm place; which when they pleaſe to hinder or ſtop, they remove it into a cool place; after it hath done fermenting, they draw it off the Lee for preſent uſe; to add to its excellency, they hang in it a little bagg wherein is *Cinamon*, *Grains* of Paradice, and a few *Cloves*. This may do very well for preſent drinking. But if you would make your *Metheglin* of the ſame ingredients, and to be kept (time meliorating any ſort of Drinks) you may preſerve your Juice of *Rasberries* at their proper ſeaſon. And when you make your *Metheglin*, decoct your *Honey* and Water together, and when it is cold, then add your Juice of *Rasberries* which was before prepared to keep, and purify your *Metheglin* by the means before preſcrib'd, or ferment it, either by a Toſt dipped in Yeſt, or by putting a ſpoonful of Yeſt unto it, to which you may add the little bag of Spices before mentioned. Then let it ſtand about a Month to be thorowly purified, and then bottle it, and preſerve it for uſe, and it may in time become a curious Drink.

They alſo ſteep *Rasberries* in *Aqua-Vitæ* twenty-four hours, and adde that to their *Hydromel*; which is a great amendment of it.

The ſame people alſo extract the Juices of *Strawberries*, *Mulberries*, and *Cherries*, and make the ſame uſe of them in their *Hydromel*, as they did of the *Rasberries*.

Many Receipts are handed from one to another, for the making of *Metheglin* or *Hydromel*, wherein are ſeveral green Vegetables preſcribed to be uſed, as *Sweet-Bryar*-Leaves, *Thyme*, *Roſemary*, *&c.* which are not to be uſed green, by them that intend to make a quick, brisk and lively Drink; green and crude herbs dulling and flatning the Spirits of the Liquor to which they are added, as you will finde if you adde green *Hops* inſtead of dry to your Beer: neither will any green herb yield its vertue ſo eaſily as when dry. But Spices and *Aromatick* herbs are very neceſſary to adde a flavour to the *Metheglin*, and abate its too luſcious taſte.

It is uſually alſo directed, that the *Metheglin* when boyling, ſhould be ſcummed, to take off the filth that ariſeth from it in the decoction: which is not

ſo

ſo neceſſary as it is pretended to be; for that ſcum remaining behind, will be of uſe, and a help to its fermentation, and makes the Liquor afterwards to become the more limpid; and doth not unite again with it, as is vulgarly believed, it being a Maxime in *Philoſophy*, that Feces once ſeparated, will never re-unite.

So that if you take *Honey*, *Live-Honey*, that naturally runs from the Combs, (and that from Swarms of the ſame year is the beſt)& adde ſo much *Honey* to clear Spring-Water, that when the *Honey* is diſſolved thorowly, an Egg will not ſink to the bottome, but eaſily ſwim up and down in it; Then boyl this Liquor in a Braſs, or rather Copper Veſſel, for about an hour or more; and by that time the Egg will ſwim above the Liquor, about the breadth of a Groat, then let it cool; the next morning you may barrel it up, adding to the proportion of fifteen Gallons an ounce of *Ginger*, half an ounce of *Cinamon*, *Cloves* and *Mace* of each an ounce, all groſly beaten, for if you beat it fine, it will always float in your *Metheglin*, and make it foul; and if you put it in whilſt it is hot, the Spices will loſe their Spirits. You may alſo if you pleaſe adde a little ſpoonful of Yeſt at the Bung-

hole to encreaſe its fermentation, but let it not ſtand too cold at the firſt, that being a principal impediment to its fermentation; as ſoon as it hath done working, ſtop it up cloſe, and let it ſtand for a Month, then draw it into Bottles, which if ſet in a Refrigeratory, as before was directed for *Cider*, it will become a moſt pleaſant Vinous Drink, dayly looſing its luſcious taſte; the longer it is kept, the better it will be.

By the floating of the Egg you may judg of its ſtrength, and you may make it more or leſs ſtrong as you pleaſe by adding of more *Honey*, or more Water.

By long boyling it is made more pleaſant and more durable.

Of Birch-*Wine.*

As well in theſe Northern parts of *Europe*, as in many places of *Aſia*, and *Africa*, may we extract the Blood of Trees themſelves, and make them drinkable. The delicacy of our Liquors made of Fruits and Grains, very much abates the eager proſecution of ſuch deſignes, yet the pleaſantneſs and ſalubrity of the Blood of ſeveral Trees, have given encouragement, to ſome *Virtuoſi*, to beſtow their labour and ſkill on them, and not in vain, The *Sycomore* and *Wallnut*-Trees are ſaid to yield excellent Juice, but we in *England* have not had ſo great

great experience in any, as in that of the *Birch-tree.*

Which may be extracted in very great quantities where thoſe Trees are plenty, many Gallons in a day may be gathered from the Boughs of the Tree by cutting them of leaving their ends fit to go into the mouths of the Bottles, and ſo by hanging many Bottles on ſeveral Boughs, the Liquor will diſtil into them very plentifully.

The ſeaſon for this work, is from the end of *February* to the end of *March*, whilſt the Sap riſes, and before the Leaves ſhoot out from the Tree; for when the Spring is forward and the Leaves begin to appear, the Juice, by a long digeſtion in the Branch, grows thick and coloured, which before was thin and limpid. The Sap alſo diſtils not in cold weather, whilſt the *North* and *Eaſt*-winds blow, nor in the night time, but very well and freely when the *South* or *Weſt*-winds blow, or the Sun ſhine warm.

That Liquor is beſt that proceeds from the Branches, having had a longer time in the Tree, and thereby better digeſted and acquiring more of its flavour, than if it had been extracted from the Trunk.

Thus

Thus may many Hogſheads ſoon be obtain'd: Poor people will (where Trees are plenty) draw it for two pence or three pence the Gallon. To every Gallon whereof, adde a pound of refined Sugar, and boyl it about a quarter or half an hour; then ſet it to cool, and adde a very little Yeſt to it, and it will ferment, and thereby purge it ſelf from that little droſs the Liquor and Sugar can yield: then put it in a Barrel, and adde thereto a ſmall proportion of *Cinamon* and *Mace* bruiſed, about half an ounce of both to ten Gallons; then ſtop it very cloſe, and about a month after bottle it; and in a few days you will have a moſt delicate briſk *Wine* of a Flavour like unto *Rheniſh*. Its Spirits are ſo volatile, that they are apt to break the Bottles, unleſs placed in a Refrigeratory, and give it a white head in the Glaſs. This Liquor is not of long duration, unleſs preſerved very cool.

Inſtead of every pound of Sugar, if you adde a quart of Honey and boyl it as before, and adding Spice, and fermenting it as you ſhould do *Metheglin*, it makes an admired Drink, both pleaſant and medicinable.

Ale brewed of this Juice or Sap, is eſteem'd very wholeſome.

I cannot paſs by naming this famous Liquor *Chocolate*, that was in a manner Meat and Drink to a great part of *America*, and is very much uſed in moſt parts of it. The principal Ingredient is the Kernel of the *Cacao-nut*, a Fruit growing in thoſe parts very plentifully, yet in ſo great eſteem amongſt them, that it was amongſt the Natives as their Coin. *Chocolate.*

To this Fruit they adde *Achiote*, which is made of the red Kernels of another Fruit there growing, by decocting them to a Pap, whereof they make Cakes. Alſo they adde *Maiz*, a Grain growing in that Country; and *Macaxochite*, a kinde of Pepper, which tempers the cooling property of the other Ingredients: They mix therewith the Flowers of the Tree *Xochinacatlis*, and *Tlilxochitle*, and a Gum that drops from a Tree they call *Holquahuitle*, which have excellent vertues with them; of all which the *Americans* compoſe a pleaſant Drink, by decocting the ſame in Wine, or Milk, or other Liquidities: And without queſtion, *Kernels*, *Grains*, and *Flowers* may here be found, that may make a counterfeit of it in taſte, and equal to it in vertue. *Quære*, whether the Kernel of the *Wallnut* may not ſupply the defect of the *Cacao*, if well ground.

In

Tea. In *China*, plentifully grows a Plant they call *Thea*, on a Shrub much like unto our *Mirtle-tree* which bears a Leaf, that the *Chineſes* gather in the Spring one by one, and immediately put them to warm in an Iron Kettle over the fire; then laying them on a fine light Mat, roll them together with their hands. The Leaves thus roll'd are again hang'd over the fire, and then roll'd cloſer together till they are dry, then put up carefully in Tin Veſſels, to preſerve them from moiſture. Thus they prepare and preſerve their beſt Leaves that yield the greateſt rates, but the ordinary they onely dry in the Sun; but in the ſhade is doubtleſs much better, the Sun having a great power to attract the vertue out of any Vegetable after its ſeparation from its Nouriſher.

Boyl a quart of clean water, and then adde to it a few of theſe dry Leaves, which you may take up at once between the tops of your fingers, and let them thus ſtand in a covered Pot two or three minutes, in which time the Leaves will be ſpread to their former breadth and ſhape, and yield their bitter, yet pleaſant taſte. This Liquor you may, if you pleaſe, edulcorate with a little Sugar, and make it an acceptable Drink. It's

It's probable ſome Engliſh Plants may yield a Leaf that may, thus ordered, make a pleaſant and wholeſome Drink. Several do uſe the Herb *Betony*, *Sage*, and other Herbs, after the ſame manner.

CHAP. VI.

Of the profits that may ariſe from propagating and preparing the ſaid Trees and Liquors, with the uſes and vertues of them.

SECT. I.

Of the profits ariſing thereby.

WE all very well know that *Advantage* is the great Mark aim'd at by moſt, and the Haven to which the greater part of mankinde ſteer their Courſe. It is that which makes the toil and labour of ſo many ingenious and induſtrious men become eaſie and pleaſant to them, and makes the Huſbandman wait with ſo much patience for his long expected Crop; ſo that it is the profit and advantage that is to be expected from theſe Plantations that

muſt

muſt encourage our Country-men to undergo the pains and expence that theſe will neceſſarily require; part of which advantages are before already in general toucht at, but the more particular thoſe which are moſt to be reſpected.

I am unwilling to trouble you with ſo exact an account as may be taken, how many greater and leſſer Trees ſhould be planted on an hundred or one thouſand Acres of Land, at ſo many foot and inches diſtance, like what of late hath been publiſhed to the world, by an account to an *Acorn*, how many of them will plant one thouſand Acres of Land at a foot diſtance, *&c.* having more of nicety than diſcretion in it; onely you may conclude, that one hundred *Apple-trees* may be planted in an Acre of ground at about twenty foot diſtance; which is a good ſize for the *Red-ſtreak*, that Tree never growing very large: the greater diſtance you plant them at, the fewer will be required: Conſideration alſo muſt be had to the goodneſs of the Land; a dry hungry Soil requiring more Trees than a more liberal, becauſe the Trees will rarely be very large; and the more they ſhadow the ground, the better, as before was obſerved.

The

The Rates and Prizes of planting one hundred of theſe Trees, are alſo eaſily to be computed; you may have them at the Gardeners, brought home, planted, and ſtaked, if they require it, for about five pound the hundred.

The yearly profit of the Herbage or Tillage of this Acre of Ground for the firſt ſeven years after planting, may well be employed in digging about the Roots of the Trees, carrying off convenient and proper Soil or compoſt for them, and maintaining the Fences, paying Duties, *&c.*

At ſeven years end, theſe one hundred Trees may, one Tree with another, yield a buſhel of Apples each Tree: for although it is not to be denied, but that ſome of them may have periſhed, and others, as yet but young, raiſed in their places, yet may ſome of theſe Trees at ſeven years growth bear two or three buſhels, and ſome a buſhel and a half, which may in the whole make one hundred buſhels, which at ſix pence *per* buſhel is fifty ſhillings; the Herbage then will be worth at leaſt twenty ſhillings *per annum*, although the Ground were worth leſs before it was planted: The eighth or ninth year your Trees may, one with another, and one year with another,

ther, yield you at leaſt two or three buſhels on a Tree, and ſometimes more; which at ſo low a rate, your five pound firſt expended, and the forbearance of the profit of your Land, and intereſt of your Money for ſeven years, will bring you in at the leaſt five pound *per annum*, the Herbage being ſtill allowed for the maintainance of your Plantation.

But if a good Fruit-year happen, and your one hundred Trees yield you four or five hundred buſhels of Fruit, and thoſe worth twelve pence or eigthteen pence the buſhel, it will, in one year, more than retaliate all your paſt labour, charge, and loſs.

The like Calculation might be made of the profits ariſing from the propagating of ſeveral other ſorts of the before-mentioned Fruits; but he that underſtands the method of planting them, will eaſily compute the advantage.

SECT. II.

Of the Uſes of the ſaid Vinous Liquors.

Beſides thoſe well-known Uſes of the Drinks before diſcourſed of, they are capable of being converted unto other very neceſſary

ceſſary Uſes at ſuch times as either the Country is full ſtocked with it, or that you have any of it that may not be ſo pleaſant and drinkable as you deſire.

For then you may, after due fermentation, extract *Spirits*, vulgarly called *Brandy*, in great plenty, and very excellent, quick, and burning. *Of making Brandy.*

It being uſual for *Cider*, when old, to burn over the fire as *Claret*, or other French wine: for the older any Liquor is, if well kept, the more Spirits it yields. *Cider* alſo hath been obſerved to yield an eighth part of good *Spirit* at an indifferent age; but if cloſe kept in a Refrigeratory for a year or two, it will yield much more.

Alſo ſome ſorts of *Cider* yield a greater plenty of Spirits than others.

In *France* they make a very conſiderable advantage of the Spirits they diſtil out of their bad Wines, and refuſe-Grapes; which may as well be done here out of our bad *Cider*, and eſpecially out of a Liquor that may be preſſed out of *Crabs* when thorow Ripe, and Mellow; it being obſerved, that the roughſt Fruit yields the moſt Spirits.

Beſides the great advantage that may be made as aforeſaid, of the unpalatable Liquors. In caſe they have loſt their Spi- *Of making Vinegar.*

rits, as it is uſually term'd, or rather that their Spirits are contracted or fixed, that they riſe not in diſtillation from the more Phlegmatick parts; Yet will theſe, or the moſt part of theſe Vinous Liquors make *Vinegar*, as hath been often experimented.

Vinegar of Cider. Take *Cider* good or bad, and put it up upon the *Rape*, as the *French* do their bad Wines, and it will produce excellent *Vinegar*, ſuch that bears the name of *White-Wine-Vinegar*, and ſhall have a good colour and taſte.

Currant Vinegar. Take the Juice of Red-*Currants* through Ripe, and adde thereto an equal quantity of Water, and let it ſtand in the Sun about three or four weeks in a Barrel with the Bung-hole covered with a Tile-Shard only: then draw it off its Lee, and you have a delicate red *Vinegar*, fit for moſt Culinary Uſes; you may make it of the Juice alone, without any addition of Water: but I have obſerved the mixt to be the ſharpeſt. This alſo may you paſs through the *Rape*, or a few *Malaga-raiſins* old & rotten will ſerve, and doubtleſs it will be much the better.

Rape. The *Rape* our Vinegariſts make uſe of, they have out of *France*, it being onely the Huſks of Grapes cloſe preſſed, which have contracted an acidity, and is of the nature of

of *Leaven*, or *Yeſt*; which uſed in an over-great quantity, ferments even to an acidity. It is yet, I ſuppoſe, to be experimented, whether our Engliſh Grapes, or ſome other Fruit, will not make a *Rape* equal in vertue to the French, which is ſomewhat difficult to obtain.

SECT. III.

Of the Medicinal Vertues of Fruits, and Drinks made of them.

It is not to be expected that I ſhould here give you an exact account of the effects theſe Fruits and Wines have on humane bodies, it more becoming a Graduate in the Medicinal Science. But to abate what any may enviouſly object againſt the ſalubrity of them, and to encourage our Country-men in the uſe of them, I ſhall here give you what have been generally obſerved to be the vertues of ſeveral of our Country Fruits and Wines.

Of Gardens and Orchards.

As to Gardens and Orchards themſelves, they have been eſteem'd the pureſt of humane pleaſures, and the greateſt refreſhments of the Spirits of man: for the exerciſes of planting, grafting, pruning, and walking in them, very much tendeth to

Salubrity, as alſo doth the wholeſome Airs found in them, which have been experienced not onely to cure ſeveral Diſtempers incident to our nature, but to tend towards the prolongation of life.

Of Apples and Cider. The Fruits of the Earth, and eſpecially of Trees, were the firſt Food ordained for man to eat, and by eating of which (before fleſh became his meat) he lived to a far greater age, than ſince any have been obſerved to have lived. And of all the Fruits our *Northern* parts produce, there's none more edible, nor more wholeſome, than Apples; which by the various preparations of the Cook, are become a part of our Table-entertainment almoſt throughout the year, and are eſteem'd to be very temperate and nouriſhing.

They relax the Belly, which is a very good property in them; but the ſweet more than the ſharp.

They help Concoction, eaten after meat with a little Bread: you may be confident that an Apple eaten after ſupper, depreſſeth all offenſive vapours that otherwiſe would offend the Head, and hinder ſleep.

Apples roſted, ſcalded, or otherwiſe prepared, according to the ſkill of the Operatour, are good in many hot Diſeaſes, againſt

gainſt *Melancholy*, and the *Pleuriſie*; the decoction of them alſo with the Pulp thinly mixt, cures the painful *Strangury* or difficulty of *Urine*, and *Running of the Reins*; and edulcorated with Sugar, is good to abate a tedious *Cold*.

Of Cider.

But *Cider* is much to be preferr'd, it being the more pure and active part ſeparated from the impure and feculent; and without all peradventure, is the moſt wholeſome Drink that is made in *Europe* for our ordinary uſe, as before is obſerved.

For its ſpecifick Vertues, there is not any Drink more effectual againſt the *Scurvie*. It is alſo prevalent againſt the *Stone*, and by its mundifying quality, is good againſt the Diſeaſes of the *Spleen*, and is eſteem'd excellent againſt *Melancholy*.

Of Pears.

Pears are neer of a nature with *Apples*, and are of as great uſe in the Kitchin and Conſervatory: they nouriſh more, eſpecially the *Warden*, which baked, and well ſweetned with Sugar, is held to be one of the beſt Reſtoratives to a Conſumptive man.

Of Perry.

The Wine made of them is more full of Spirit than that of the *Apple*, and eſteem'd a greater Cordial.

Of Grapes.

The uſes and vertues of *Grapes* and

their Wine, are ſo generally known, that it's needleſs to mention them.

Of Quinces. Although *Quinces* yield no Vinous Juice pleaſant to the Palate, yet are they not to be rejected in our Plantation or Vineyard, for their excellencie in the Kitchin and in the Conſervatory.

Theſe Fruits, any ways preſerved or prepared, are an excellent ſtringent and corroborating Medicine.

Of cherries. The *Cherry* is a moſt innocent Fruit, and rarely hurts any, unleſs eaten in too great a quantity.

The Wine made of them is a very pleaſant and proper Wine for the Summer-ſeaſon, cooling, ſtrengthning, and ſtirring up a good appetite to Meat.

Of Plums. *Plums* are uſeful in the Kitchin, and many ſorts of them excellent to preſerve.

Eaten raw, are cooling, and hurt not, unleſs in too great a quantity.

The Wine of them being well purified, is near in vertue to *Cherry-wine.*

Of Currans. Our Engliſh *Currans* are ſharp, but very cooling, aſtringent, and corroborating, and very wholeſome, eaten raw: eating too many of theſe, is not to be feared, they wearying the mouth before they ſatiate the ſtomach.

The

The wine that is made of them is one of the moſt pleaſant and wholeſome Wines made in this Iſle; its ſpecifick Vertues are not yet vulgarly known, but queſtionleſs excellent againſt the *Scurvie*.

Gooſeberries are cooling, and open the Belly; the like vertue may be expected from its Wine. There is no Fruit more innocent than this, rarely injuring any by the over-eating of them. *Of Gooſeberries.*

They are for a long ſeaſon uſeful in the Kitchin, few Families being ignorant of their worth.

After ſeveral other Summer-fruits are paſt, *Rasberries* come in uſe for a fine cooling repaſt; their Wine being one of the pleaſanteſt Liquors that can be obtained, and the moſt proper for the Autumnal ſeaſon, before *Cider* is become palatable. *Of Rasberries.*

Strawberries are a pleaſant cooling Fruit, and the diſtill'd Water of them excellent againſt the *Stone*, *Gravel*, or *Strangury*. *Of Strawberries.*

Aprecocks and *Peaches* are not ſo commendable in this cold Climate for their Medicinal Vertues, as they are for their pleaſant taſte, and excellencie in the Kitchin and Conſervatory. *Of Aprecocks and Peaches.*

Unripe *Mulberries* crude or dried, are of an aſtringent quality; but if through *Of Mulberries.*

ripe, they relax. The Juice of this Fruit is Anti-ſcorbutical, and therefore uſed to waſh the mouths of ſuch that are affected with that Diſeaſe.

Of other Fruits. *Figs*, *Walnuts*, *Filberds*, *Medlars*, &c. are not within the limits of this diſcourſe, therefore I need not trouble the Reader with any thing of them.

Of Metheglin. *Metheglin*, as it is in ſtrength, ſo it is in vertue, warming, animating, and mundifying; reſtoring loſt Appetite, openeth the Stomach, ſoftneth the Belly; is good againſt the *Conſumption* of the Lungs, and all *Coughs* and *Colds*; againſt *Quartan Agues*, and all Diſeaſes of the Brain, as *Epilepſies*, *Apoplexies*, &c. it cureth the *Yellow Jaundies*: and there is no better Drink againſt the ſevere pain of the Gravel in the Reins, or Stone in the Bladder; neither is there any Liquor more conducing to Long Life than this and *Cider*, as the many Drinkers thereof can witneſs.

Of Birch-wine. The Vertues of the Liquor or Blood of the *Birch-tree* have not long been diſcovered, we being beholding to the learned *Van Helmont* for it; who in his Treatiſe of the Diſeaſe of the *Stone*, hath very much applauded its vertues againſt the affects of that Diſeaſe, calling the natural Liquor

Liquor that flows from the wounded Branches of that Tree, the meer Balſam of the Diſeaſe of the *Stone*. Ale brewed therewith, as well as the Wine that is made of it, wonderfully operates on that Diſeaſe.

Alſo *Birch-wine* is a great opener, and reputed to be a powerful Curer of the *Ptiſick*.

Choçolate is a very great Reſtorative, comforting and cheriſhing the inward parts, and reviving natural ſtrength, and hath a wonderful effect upon Conſumptive and antient people, being drank hot in a morning. *Of choçolate.*

The Vertues of *Thea* are very much applauded, throughout the Countries where it is ſo much drank, againſt all affects of the Head, and obſtructions in the Stomach, of the *Spleen* and the Reins. *Of Thea.*

It drieth up all vapours that offend the Head, and annoy the Sight.

It digeſteth any thing that lieth heavy on the Stomach, and reſtoreth loſt Appetite.

In brief, it is confidently affirmed throughout the vaſt Regions where it is plentifully drank, that the drinkers of this Liquor are never troubled with the *Stone* or *Gout*,

The

The Vertues hereof are more largely diſcourſed of in the ſeveral Hiſtories of thoſe parts where it is propagated, and in a Paper printed by Mr. *Thomas Garway* in *Exchange-alley* neer the *Royal Exchange* in *London*, the principal Promoter and Diſperſer of this Leaf and Liquor.

A Corollary *of the Names and Natures of moſt Fruits growing in* England.

THis Tract of the propagating of Fruit-Trees, and extracting, preparing, and preſerving their Vinous Juices, cannot be compleat without ſome Accompt of that variety of Fruits this Country produceth; which is a task beyond my ability exactly to perform; every County, and many parts of each County, producing ſome ſort or other of Fruit not known in the next; or at leaſt giving them other names, ſo that you cannot expect any exactneſs herein. Only a Catalogue of the moſt general and uſeful kinds that are either fit for the Table, Kitchin, Confectionary, or the Preſs, with ſome ſhort Notes or Obſervations on their ſpecifick natures or vertues.

SECT.

SECT. I.
Of Apples.

There is no Fruit growing in *England* more uſeful or profitable than the Apple; whereof there are many ſorts,

The *Aromatick or Golden Ruſſeting* hath no compere, it being of a Gold-colour Coat, under a Ruſſet hair, hath ſome warts on it, its Fleſh of a yellow colour, its form of a flattiſh round. This Fruit is not ripe till after *Michaelmas*, lives over the Winter, and is without diſpute the moſt pleaſant taſted Apple that grows; having a moſt delicate Aromatick hautguſt, and melting in the Mouth.

The *Orenge-Apple*, ſo called from its likeneſs in colour and form to an Orenge, deſerves the next place, having a fine rough Gold-coloured coat, reſembling the Golden Pippin, only fairer; lives long, and is of a very pleaſant taſte.

The *Golden-Pippin* is, as was ſaid, ſmaller than the *Orenge-Apple*, elſe much like it in colour, taſte, and long keeping.

The *Ruſſet-Pearmain* is a very pleaſant Fruit, continuing long on the Tree, and in the Conſervatory; partakes of both *Ruſſet-*

ing

ing and *Pearmain* in Colour and Taſte, the one ſide being generally *Ruſſet*, and the other ſtreak'd like a *Pearmain*.

The *Pearmain*, whereof there are two or three ſorts, is ſo excellent an Apple, and ſo well known, that no more need be ſaid of it; only the larger ſort is more pulpy than the ſmaller, and keeps not ſo well; neither is the Summer-*Pearmain* ſo good as the Winter. They are all very good *Cider*-Apples, but not to be preferr'd to your *Cider*-Plantation, being no great Bearers.

Pippins, which are of ſeveral ſorts, takeing their name from the ſmall ſpots or pips that uſually appear on the ſides of the Apple. Some are called *Stone-Pippins*, from their obdurateneſs. Some are called *Kentiſh-Pippins*, becauſe they are a Fruit that agrees well with that ſoyl; others are called *French-Pippins*, having their original from *France*; the *Holland-Pippin* from the ſame cauſe, and the *Ruſſet-Pippin* from its Ruſſet hew. They are generally very pleaſant Fruit, and of a good Juice, fit for the Table, Conſervatory and Kitchin; but not ſo fit for our Plantation for *Cider*, as the more ordinary Fruit, being but tender bearers.

The

The *Kirton-pippin* is one of the beſt ſorts of Table-fruit of that ſeaſon, which is from *Michaelmas* to *Alhollantide*, and yields very good *Cider*.

The *Carliſle-Pippin*, and the *Bridgwater-Pippin*, are much commended for excellent Table-Fruits.

The *Golden-Rennet* is a very pleaſant and fair Fruit, of a yellow Fleſh, a good bearer, and yields a very good Juice, and to be preferred in our Plantation for all occaſions.

The *Lincoln-Rennet* is preferred by ſome before any of the other Rennets.

The *Leather-Coat*, or *Golden-Ruſſeting*, as ſome call it, is a very good Winter-Fruit, living long, and of a good firm and yellow Fleſh.

The *Green-Ruſſeting* is a tough and hard Fruit, long laſting, and of a very pleaſant hautguſt.

The *Red Ruſſeting* is of a leſſer ſize, an excellent Apple, and long laſting.

The *John-Apple*, or *Denx-ans*, ſo called from its durableneſs, continuing two years before it periſheth, is a good reliſht ſharp Apple the Spring following, when moſt other Fruit is ſpent; although there are ſome Pippins will out-live them. The

Denx-

Denx-ans are not fit for our *Cider*-Plantation, being a dry Fruit, and as ſome report, that little Juice they have, not pleaſant.

The *Marigold*-Apple, (ſo called from its being marked in even ſtripes in the form of a *Marigold*; ſometimes the *Onyon-Apple*, from the reddiſh brown Colour, reſembling a well-coloured Onyon; ſometimes called the *Kate-Apple*, and ſometimes *Johns Pearmain*, from its likeneſs to a *Pearmain*) is a very good Fruit, long laſting, and fit for the Table, Conſervatory, Kitchin, or the Preſs, yielding a very good Juice, and to be propagated in your *Cider*-Plantation, bearing every other year, even to admiration; the intervening years but a few.

The *Harvey-Apple*, and the *Round-Ruſſet-Harvey*, are both excellent Fruits for the Table; and were they great bearers, no doubt but they would yield excellent Liquor.

The *Queen-Apple*, thoſe that are of the Summer, are excellent *Cider*-Apples mixt with other, being of themſelves ſweet. The *Winter-Queening* is a good Table-Fruit.

The *Paradice-Apple* is a curious Fruit, produced by grafting a *Permain* on a Quince.

The *Pome-Roy*, is a Fruit of a high name,

a

a good taſte, a pulpy ſubſtance, and not yielding much Juice; yet that which is, is very good.

The *Pome-water* is an indifferent good laſting Fruit.

The *Golden-Doucet*, or *Golden-ducket*, is much commended.

The *Weſtberry-Apple*, taking its name from *Weſtberry* in *Hampſhire*, from whence they are much diſperſed into the adjacent parts, its one of the moſt ſolid Apples that grows, of a tough rind, and obdurate Fleſh, ſharp and quick taſte, long laſting, and yields a very excellent and plentiful Juice, making a *Cider* equal to the beſt of Fruits, and for the Kitchin few or none exceeding it.

The *Gilliflower-Apple* is of a pleaſant Hautguſt, and long laſting, of a thick Rinde, and hard Core, well ſtrip'd, and good for *Cider*, making an excellent mixture.

Of early Apples, the *Margaret*-Apple is the beſt and moſt early, uſually Ripe about St. *Margarets* day in *June*. It is a fair and beautiful Fruit, and of a pleaſant taſte and ſcent, not to be match'd at that ſeaſon for the Table and Kitchin, and deſerves a more general propagation.

The

The *Jeniting* is next to be eſteemed, as well for its early ripening as its pleaſant taſte.

The *Summer-Pippin* is a very pleaſant Apple in colour and taſte, and as neceſſary for all manner of uſes, yielding a delicate Juice.

The *Codling*, ſo called from the uſe it is put unto, is a very neceſſary Apple in the Kitchin, and makes a good Summer-*Cider.*

The *Claret-wine-apple* is fair, and yields plenty of a pleaſant ſharp Juice, from which it takes its name, and not from the Colour, it being a white Apple; but makes a rich Vinous Liquor, which well ordered excells moſt of other *Ciders*, eſpecially with a mixture of ſweet Apples.

The *White-Wining*, is a ſmall white Apple; the Tree is a great bearer, and the fruit juicy and pleaſant, but ſoon periſhing, and the *Cider* made thereof ſmall.

The *King-Apple*, though not common, yet is by ſome eſteemed an excellent Apple, and preferr'd to the *Jenniting.*

The *Famaguſta* is alſo in the number of the beſt early Apples.

The *Giant-Apple* is a large Fruit and well taſted, and the beſt of any Summer-Apple for Culinary uſes.

The *Bontradue* or *Good Houſewife*, is the largeſt of Apples, a great bearer, and good for the Kitchin, and makes good Summer-*Cider*.

The *Cats head*, by ſome called the *Go-no-further*, is a very large Apple, and by its red ſides promiſes well for *Cider*.

The *Spicing*, of all Apples that are marked ſo red, is the meaneſt: but whether this Engliſh Apple ſo called, be the ſame that bears the like name in *France*, whereof there are Plants brought thence, I cannot determine.

The *Gennet-Moyle* is a pleaſant and neceſſary Fruit in the Kitchin, and one of the beſt *Cider*-Apples. The Fruit is well marked, and the Trees great bearers.

The *White Muſt* is a very pleaſant Apple, yielding great plenty of Vinous Liquor, bearing this name in *Herefordſhire*, and is thought, by ſome, to be the ſame with the *Golden Runnet* in *Hampſhire*.

The *Red Muſt* is alſo of the ſame nature.

The *Fox-whelp* is eſteemed among the choice *Cider*-fruits.

The *Bromsbury Crab*, although little better than the common, yet kept on heaps till *Chriſtmas*, yields a briſk and excellent *Cider*.

Eleots

Eleots are Apples much in requeſt in thoſe *Cider*-Countries for their excellent Liquor, but not known by that name in ſeveral parts of *England*.

The *Stocken* or *Stoken-Apple* is likewiſe in eſteem there, although not known by that name in many places.

The *Bitter-Scale* is an Apple much eſteemed of in *Devonſhire*, for the excellent *Cider* it yields without the mixture or aſſiſtance of any other.

The *Deans-Apple*, or the name at leaſt, is there well eſteemed of for the ſame reaſon.

As alſo is the *Pleaſantine*, perhaps the ſame with our *Marigold*.

The *Pureling*, or its name, is not uſual, but in the ſame parts.

The *Violet-Apple* is of a moſt delicate aromatick taſte, which occaſioned the name; it is a Fruit not uſually met with-al; it's of a greeniſh colour, and not of a very firm body. Many give this name to other Fruits, which corruptly are called

Fillets, whereof alſo there are the Summer and the Winter, in very high eſteem for their delicate Vinous Liquor they yield: The *Summer-fillet* for the preſent, and the *Winter-fillet* for laſting *Cider*.

The *Underleaf* is a *Herefordſhire*-Apple of a *Rheniſh-wine* flavour, and may be accounted one of the beſt of *Cider*-Apples.

The *Arier-Apple*, *Richards*, or *Grange-Apples*, are alſo reckoned amongſt the beſt *Cider*-Apples.

The *Coling* and the *Olive*-Apples, are in thoſe parts much eſteemed of for the ſame uſes.

But above all *Cider*-fruit, the *Redſtreak* hath obtain'd the preference, being but a kinde of *Wilding*, and though kept long, yet is never pleaſing to the Palate. There are ſeveral ſorts of them, the *Summer* and the *Winter*, the *Yellow*, the *Red*, and the more *Green Redſtreak*; ſome ſorts of them have red veins running through the whole body of the Fruit, which of neceſſity muſt give the *Cider* made thereof the richeſt Tincture.

The *Quince-Apple*, ſo called from its colour, and is a very good Table-fruit, and then not bad for *Cider*.

The *Non-ſuch* is a long-laſting Fruit, good at the Table, and well marked for *Cider*.

The *Angels Bit* is a delicate Apple for taſte, and the Tree or its name proper to *Worceſterſhire* and thoſe parts.

The

The *Peeling* is a very good laſting Apple, and makes very good *Cider*; it ſeems to be an antient Engliſh Fruit, being found in old Orchards, and agrees very well with this Air, and is a great bearer.

The *Oaken-pin*, ſo called from its hardneſs, is a long-laſting Fruit, and yields excellent Liquor.

The *Greening* is alſo another old Engliſh Fruit of a green colour, and keeps to a ſecond year, and is a good Apple.

The *Lording* is a fair, green, and ſharp Apple, a conſtant bearer, being a hardy Fruit, and for the Kitchin onely, to be preferred.

Sweet Apples there are of ſeveral ſorts, and their names change in every place; ſo that they are rather known by their colour and ſize, than their names. There is one ſort called the *Honey-comb* in ſome places, which is a fair Apple, and by mixture with other Fruit, makes admirable *Cider*; ſo doth the *Small Ruſſet-ſweet Apple*, whoſe Tree is always cankery.

There is a curious Apple newly propagated, called *Pome-appeaſe*; the Fruit is ſmall and pleaſant, which the Madams of *France* carry in their Pockets, by reaſon they yield no unpleaſant ſcent. The Tree

is a very great bearer: I ſuppoſe this is that which is called the *Ladies Longing.*

The *Fig-Apple* is alſo lately propagated in this Country, the Tree yielding no Bloſſoms, as is uſual with all other Apple-trees; nor hath the Fruit in it any Core or Kernel: in theſe reſembling a Fig, and differing from other Apples, yet is a very good Table-fruit, and laſting.

The *Creeper*, ſo called from the Tree that grows low, trailing its Branches neer the ground; the Fruit is alſo a good Fruit.

The *Indian-Crab*, it's a Fruit I have not yet ſeen, but am informed there is ſuch a Tree in *Hampſhire* that was brought from *America*, where it grew in the Woods as our *Crabs* do. The Fruit is reported to be a very pleaſant Fruit.

The *Sodome-Apple*, or *Bloudy Pippin*, is a Fruit of more than ordinary dark colour, and is eſteemed a good Apple.

The Summer *Belle & bon*, is a fair Apple, and the Tree a good bearer; but the Fruit is not long-laſting; for a ſhort time it's a good Table-fruit, and makes indifferent good *Cider.*

The Winter *Belle & bon* is much to be preferred to the Summer in every reſpect.

The

The *Pear-Apple* is a curious pleaſant Apple of a rough coat, but the Tree no great bearer.

The *Coſtard*, *Parſley-Apple*, the *William*, the *Cardinal*, the *Shortſtart*, the *Winter-Reed*, the *Cheſnut-Apple*, and the *Great Belly*, are in many places Apples of eſteem: but being not acquainted with them, I can onely name them. Many more there are both *French* and *Engliſh*, which either are not made familiar to us, or elſe are peculiar onely to ſome places, or their names changed in every County, or elſe are of ſmall account; which to ennumerate would be tedious and uſeleſs.

Sect. II.

Of Pears.

The next in eſteem are *Pears*, ſo called from their *Pyramidical* form; whereof there are ſo great variety, that the Kitchin and Table may be furniſhed throughout the year with different Species.

The *Early Suſan* is the firſt ripe, being a ſmall round Pear little bigger than a large *Cherry*. The Colour of this Pear is Green, and taſte pleaſant.

The *Margaret*, the *Maudlin*, the *Sugar*,

the *Madera*, the *Green Royal*, *St. Laurence*, *Green Cheſil*, and many other early Pears are in eſteem for the Table in *July*. But after them you have

The *Windſor*, the *Greenfield*, the *Summer-Bergamot*, the *Orenge*, the *Soveraign*, ſeveral ſorts of *Katherines*, whereof the red *Katherine* is the beſt: The *Denny-pear*, *Pruſſia-pear*, *Summer-Poppering*, *Lording-pear*, Summer *Bon-Chriſtien*, the *Orenge-Bergamot*, *Hampdens Bergamot*, *Bezi de Hery*, the *Violet-pear*, the *Painted Pear*, ſo called from its delicate ſtrip'd colours; the *Roſewater-pear*, the *Shortneck*, ſo called from the ſhortneſs of its form and tail; the *Binfield* or *Dove-pear*, the great *Muſk-pear*, the great *Ruſſet of Remes*, *Amadotte*, the *Rouſſellet*, *Norwich-pear*, the *Pomegranate-pear*, ſo called from its ſhape, and the *Edward-pear* very pleaſant, are all very good Table-fruit for their ſeaſon before *Michaelmas*.

The *Bœvre du Roy* is eſteemed, for the Table, the beſt of all Summer-pears; is a fair brown Pear, and excellent in its ſeaſon, melting in the mouth, and thence called the *Butter-pear*, and bears well againſt a Wall. The *Green Bœvre-pear* is more green and larger than the former.

The

The *Lewis-pear*, or by ſome the *Maiden-heart*, is the beſt of all Pears to dry, and is a good bearer.

The *Bloody-pear* is a good Pear, taking its name from the Red Juice it hath within its ſkin, and is a very great Curioſity.

The *Engliſh-warden*, the *French-warden*, the *Spaniſh-warden*, the *White-warden*, the *Stone-pear*, the *Arundel-pear*, the *Biſhops-pear*, the *Caw-pear*, *Winter-muſk*, the red *Roman-warden*, the *Green-warden*, and *Winter-norwich*, are excellent baking Pears.

The *great black Pear of Worceſter*, or *Parkinſons Warden*, is to be preferr'd to all other Pears to bake; it bears very well againſt a Wall; the Pears uſually weighing twenty ounces, and ſometimes more, each Pear; and being twice backed with Sugar, exceed moſt Fruits.

The *Diego-pear*, *Monſieur-John*, *Rowling-pear*, *Balſam-pear*, *Bluſter-pear*, *Emperours-pear*, the *Queen-Hedge-pear*, *Frith-pear*, *Brunſwick-pear*, *Bings-pear*, *Winter-Poppering*, *Thorn-pear*, the *Portail*, the *Nonſuch*, *Dionier*, *Winter-Katherine*, *Clove-pear*, *Lombart-pear*, *Ruſſet-pear*, *Saffron-pear*, the *Petworth-pear*, or *Winter-Windſor*, *Winter-Bergamot*, *Pound-pear*, and *Hundred pound-pear*, *Long-Bergamot*, *Burnt-cat*,

cat, *Lady-pear*, *Ice-pear*, *Dead mans pear*, *Bell-pear*, the *Squib-pear*, *Spindle-pear*, *Dogoniere*, *Virgin*, *Gaſcoigne-bergamot*, *Scarlet-pear*, and *Stopple-pear*, are all very good Winter-pears, and keep throughout the old year.

Pears that uſually keep until the ſucceeding Spring, are the Winter-*Bon-Chriſtien*, the beſt of Winter-pears; the great *Surrein*, *Little Dagobert*, the *Double-bloſſome-pear* the longeſt liver of all, and taſtes very well in the Spring; the *Oak-pear*, the great *Kairville*, the *Little black Pear of Worceſter*.

Pears that are eſteemed for their Vinous Juice in *Worceſterſhire* and thoſe adjacent parts, are the *Red* and *Green Squaſh-pears*, the *John-pear*, the *Green Harpary*, the *Drake-pear*, the *Mary-pear*, the *Lullam-pear*; but above the reſt are eſteemed the *Bosbury* and the *Bareland pears*, and the *White* and *Red Horſe-pear*.

As for the *Turgonian-pear* that yields that moſt ſuperlative *Perry* the world produces, mentioned in the *Pomona* of the moſt ingenious Mr. *Evelin*, I only wiſh it were more generally diſperſed.

SECT.

SECT. III.
Of Cherries.

In the next place the *Cherry*, ſo called from the French word *Ceriſes*, is admitted to be a Fruit of general uſe, eſpecially for the Palate, off the Tree, and for the Conſervatory. They are ripe on the Trees but three Summer Months, *May*, *June*, and *July*; afterwards to be had onely in the Conſervatory.

In *May* are the Cherries uſually called from the name of this month: The *Duke* and *Archduke* againſt a good Wall are moſt years ripe before the end of the month.

In *June* are ripe the *White*, *Red*, *Black*, and *Bleeding Hearts*, *Lukewarm* one of the beſt of *Cherries*; the early *Flanders*, the *Cluſter-cherry* bearing three, four, or five uſually on a ſtalk; the *White Spaniſh-cherry*, the *Amber-cherry*, the *Black-orleans*, the *Spaniſh-black*, and the *Naples*.

In *July* uſually ſucceed the *Late Flanders*, common *Engliſh-cherry*, *Carnations* a delicate Fruit for the Table or Conſervatory; *Morella*, or the great bearer, being a black Cherry fit for the Conſervatory, before it be

be through ripe, but bitter eaten raw; onely it is to be eſteemed, being the laſt Cherry that hangs on the Tree; the *Morocca-cherry*, the *Egriot*, *Bigarreaux*, the *Prince-Royal*, the *Portugal-cherry*, the *Kings Cherry*, the *Crown-cherry*, and the *Biquar*, both ill bearers: the great *Purple-cherry*, one of the beſt and lateſt Cherries, and a good bearer; the *Ounce-cherry*, ſo called from its fairneſs; the *Dwarf-cherry*, ſo called from the ſmalneſs of its Twigs and Fruit: there is alſo the common *Black Cherry*, much in eſteem for its Phyſical properties.

SECT. IV.
Of Plums.

There is great variety of *Plums*, and they alſo appropriated to ſeveral uſes; they continue longer on the Trees than *Cherries*, and are a more pleaſing, but not a more wholeſome Fruit.

The firſt ripe are the Red, Blue, and Amber, *Primordian-plum*, the *Violet*, Red, Blue, and Amber, the *Matchleſs*, the Black *Damaſin*, the *Morocco*, the *Barbery*, the *Myrobalan*, the *Apricot-plum* a delicate Plum that parts clean from the Stone, the

the *Cinamon-plum*, the *Kings Plum*, the *Spaniſh*, the Lady *Elizabeth-plum*, the *Great Mogul*, and the *Tawny-plum*.

After them are the *White*, *Red*, and *Black Pear-plums*; the two former little worth, but the Black a pleaſant Fruit; the *Green Oſterly-plum*, the *Muſcle-plum* one of the beſt of *Plums*, the *Catalonia-plum* much like the former; the White *Prunella*, the Black *Prunella*, the *Bonum Magnum* a fair yellowiſh green *Plum*, excellent for the Kitchin and Conſervatory; the *Wheaten-plum*, the *Laurence-plum* an ill taſted Fruit, the *Bole-plum*, the *Cheſton-plum*, the *Queen-Mother-plum* one of the beſt ſort, the *Dyaper'd-plum*, the *Marbled-plum*, the *Damaſco-plum*, the *Foderingham-plum*, the Blue and Green *Pedrigon*, and the White not ſo good a Fruit, the *Verdoch* good onely to preſerve, the *Peach-plum*, the *Imperial Plum* one of the largeſt of Plums, the *Gaunt-plum*, the *Denny-plum*, the *Turkey-plum*, the Red, White, and Green *Peaſcod-plums*, the *White*, *Yellow*, and *Red Date-plums*, the *Nutmeg-plum*, the *Great Anthony*, the *Jane-plum*, the *Prince-plum* the laſt ripe, and good for ſeveral uſes. Many other ſorts of Plums there are, whoſe names are uncertain, and are therefore here omitted.

There

There are two ſorts of *Damſons*; the Black, which is the moſt neceſſary and beſt of all *Plums*; and the White, which is not ſo good as the Red: theſe are natural to our Engliſh Soil, as are the Black and White *Bullis*; whereof the White are pleaſant in *October* and *November*, and the Black neceſſary for the Kitchin in *December*, they uſually hanging on the Trees till *Chriſtmas*.

SECT. V.

Of Apricots, Peaches, Malacotnnes, and Nectarins.

The *Apricot*, ſo called from *Apricus*, delighting in the Sun, is a kind of *Plum*, but far exceeding any of the former in every reſpect; whereof

The *Algier-apricot* is early ripe; it's a ſmall round and yellow Fruit ripe in *July*.

The *Maſculine-aprecot* is a better and earlier Fruit than the former, but not ſo good a bearer.

The long, white, and *Orenge-aprecot* differ from the common *Aprecot*, as their names tell you.

The great *Roman-aprecot* is the largeſt of all the kinds, and therefore beſt for the Kitchin and Conſervatory. *Pea-*

Peaches, from the French name *Peſche*, are of longer continuance than *Aprecots*, and of a richer and more noble guſt and ſavour.

The moſt early are the *Nutmeg*, both White and Red; the *Troy-peach*, next the *Savoy-peach*, *Iſabella*, *Perſian*; the *White-Mounſier*, *Newington*, *Belline-peach* to be preferr'd to the former; the *Queen-peach*, and the *Magdalen-peach*, and the *Double-bloſſome-peach*.

After them come the *Rambouillet*, the *Muſk-peach*, and the *Violet-muſk*, both eſteem'd the beſt of *Peaches*; the *Crown-peach*, the *Roman-peach*, *Man-peach*, *Quince-peach*, *Grand Carnation*, *Portugal-peach*, *Bordeaux-peach*, *Deſ-pot* being ſpotted, *Verona*, *Smyrna*, *Pavie-peach*, and the *Colerane-peach*; one of the lateſt is the *Bloody-Monſter*, an excellent *Peach*, very red within and red without.

The *Modena*, *Orleans Red Peach*, *Morello-peach*, *Navar* and *Alberges*, are very good Fruit, and come clean from the Stone.

Of *Malacotonnes*, as much as to ſay, Apples which cotton on them, there are two or three ſorts, but being late ripe and old Fruit, they are not much valued.

Necta-

Nectarines, of the ſavour and taſte of *Nectar*, are very pleaſant Fruit, whereof the *Red Roman* is the faireſt, and by moſt eſteem'd the beſt and moſt delicate Fruit for its guſt, that this Iſland yields: By ſome the *Muroy* is preferr'd, and by ſome the *Tawny*, neither of them ſo large as the *Red Roman*.

Then there is the *Red Nectarine*, an excellent Fruit, and by many much ſet by, becauſe it leaves the Stone.

Beſides all which, there are the *Green*, the *little Green*, the *Cluſter*, the *Yellow*, the *White*, the *Paper-white*, the *Painted*, the *Ruſſet*, and the *Orbine Nectarines*, that are very good Fruit, but not to be compared to the former.

SECT. VI.

Of Grapes.

The *Grape* is the moſt univerſal, and yields the beſt Juice of any Fruit whatſoever; ſeveral ſorts of them proſper very well with us.

Of which the *White Muſkadine* is the beſt, bearing well, large Bunches and fair Fruit, ripens in moſt years againſt a *South*-wall, and fitteſt for *Eſpaliers* or a *Vineyard*.

The

The *Small black Grape*, by ſome called the *Cluſter-grape*, and by ſome the *Currant-grape*, is the firſt ripe, bears well: the Bunches are ſmall, but the Grapes ſo thick that you cannot put a Pin between them, and is a very pleaſant ſweet Grape, and is fit for your propagation as any Fruit almoſt that grows.

The *Canada* or *Parſley-grape*, ſo called from the Country whence it came, and from the form of its Leaf, which is very much divided and jagged like a *Parſley-leaf*; it is ripe ſomewhat late, but a good Fruit.

The *Black Orleans* is a very good black Grape, and ripens very well with us.

The *Red-muſcadine* is a good Grape, and ripens well in very hot years, and is not ſo good as the the *Black Orleans*.

The *Raiſin-grape* is a large and long Grape, but ripens not well in this Climate.

The *White Frontiniac* is a Fruit of a very pleaſant hautguſt, like unto the *Rhiniſh-wine*, and will ripen with us, in caſe it be planted againſt a good Wall, and in a hot Summer.

There is alſo the *Red Frontiniac*, much of the ſame nature.

There are alſo the ſmall *Blue-grape*, and the great *Blue-grape*, that are very good Fruit, and ripen well with us.

The *Burſarobe* is an excellent, large, ſweet, white Grape, and in ſome years will ripen well; as alſo will the *Muſcat*.

The *Burlet* is a very large Grape, but ſeldom ripening here.

There are alſo ſeveral old Engliſh-grapes, and ſome forreign, that are fit onely to make Vinegar of.

SECT. VII.

Of Quinces.

There is not a more delicate Fruit in the Kitchin and Conſervatory, than the *Quince*; whereof

The *Portugal Apple-quince* is eſteemed the beſt; it is a large yellow Fruit, tender, pleaſant, and ſoon boiled.

The *Portugal Pear-quince* is much like the former, except in its form.

The *Barbery-quince* is leſſer than the other, as is the *Engliſh-quince*, which is a harſh Fruit, and covered with a Doun or Cotton.

The *Lyons Quince* is a large yellow, and the *Brunſwick-quince* a large white, both very

very good, but all inferiour to the two firſt ſorts.

SECT. VIII.

Of Figs, Walnuts, Nuts, and Filberds.

Figs are highly eſteem'd by ſome, where- *Figs.*
of the *Great Blue Fig* is moſt accounted of; next unto it, the *Dwarf Blue-fig* being, much leſs in Tree and Fruit, but better taſted, and ſooner ripe.

The *Walnuts*, (or rather *Gaul-nuts*, or *Walnuts.*
French-nuts, coming originally out of *France*, and corruptly called *Welſh-nuts* in the *Weſtern*-parts of *England*, the G being in time pronounced as a W, as *Guerre Warre*, *Guardian Warden*, &c. and ſo *Galnut Walnut*) are univerſally ſpread over this Country; of which there are ſeveral ſorts.

The *Great Double Walnut* in ſome places ripens very well, is very ſweet; but the Kernel anſwers not the bigneſs of the Shell.

There are other ſorts that are leſſer, with very hard Shells, and ſweet Kernels, that ripen very well in any place.

But the beſt are thoſe of a tender thin Shell, and a full Kernel, and of a middle ſize.

There is another ſort that grows neer *Salisbury* of a middle ſize, and a very good Fruit, called the *Bird-nut*, from the reſemblance the Kernel hath to a Bird, with its Wings diſplayed at firſt view after the Nut is ſlit in the middle.

There is alſo the *Early Wallnut* that ripens above a fortnight before any of the other, and is of as thin a Shell and pleaſant a taſte as any of the other. This Fruit I have not obſerved any where, but at *Petersfield* in *Hampſhire*.

Alſo there is a very ſmall ſort of this Fruit round, and but little bigger than a *Filberd*, growing at the ſame place.

Nuts. Beſides the ordinary *Haſel-nuts* that grow wilde, there are Nuts that are of a thin Shell, large Kernel, and but little Huſk, that are uſually planted in Orchards.

There is a large kinde of theſe long thin-ſhell'd Nuts with a very fair Kernel

And alſo a great round Nut with a thick Shell and a large Kernel.

Filberds. But the *Filberds* are to be eſteemed above them, whereof there is the *White Filberd*, which is commonly known.

And the *Red Filberd*, like unto the former, onely that the Kernel is covered with a red ſkin, alſo the Shell and Leaf do incline

cline more to redneſs than the other ſorts.

The *Filberd of Conſtantinople* hath the Bark whiter, the Leaves bigger, and the Huſks more jagged and rent than the former. The *Nuts* are like thoſe of the white *Filberd*, but rounder and bigger, as Mr. *Ray* ſaith in his *Pomona*.

SECT. IX.

Of Gooſeberries, Currans, Barberries, and Rasberries.

Gooſeberries, ſo called from the uſe that have a long time been made of them in the Kitchin when Green-geeſe are in ſeaſon. *Gooſeberries.*

The firſt ripe are the *Early Red*, which is a fine, ſharp, pleaſant Fruit: there are three ſorts of them, differing onely in their ſizes, the biggeſt being the ſweeteſt.

There is alſo the *Blue-gooſeberry*, differing little from the former, onely in colour more blue, and later ripe.

The *Great White Dutch-Gooſeberry* is the faireſt and beſt, and fitteſt for our Vineyard, and a very great bearer.

The *Great Yellow Dutch* differeth from the former onely in colour.

The *Engliſh Yellow-Gooſeberry* is known to every one, and is fitteſt for Culinary uſes whilſt green.

The *Hedgehog-gooſeberry* is a large Fruit, well taſted, and very hairy.

The *Small rough Gooſeberry* is hardly worth the mentioning.

The *Green-gooſeberry:* of this there is the greater and the leſſer, both very good, and late ripe.

Currans. *Currans*, or *Corinths*, from the *Corinths* of *Corinthia* firſt taking their name; whereof there are ſome that have been antiently planted in theſe parts: As

The *Engliſh Red-curran*, once in eſteem, but now caſt out of all good Gardens, as is the black, which was never worth any thing.

The *White-curran* was, not long ſince, in moſt eſteem, until

The *Red Dutch-curran* became native in our Soil, which is alſo improved in ſome rich moiſt grounds, that it hath gained a higher name, of the *Greateſt Red Dutch-curran*. Theſe are the onely Fruit that are fit to be planted and propagated for *Wine*, and for the *Conſervatory*.

There is another ſort of *Curran*, newly propagated from abroad, but not to be eſteem'd for the Fruit, onely for Curioſity.

Barberries. Of *Barberries* there are but three ſorts; the ordinary ſort, and *Barberries* without ſtones

ſtones, and the *Great Barberry*, which is a ſort bearing bigger Fruit than either of the other.

Of *Rasberries* there are three ſorts; the Common wilde, the large Red *Garden-Rasberry*, which is one of the moſt pleaſant of Fruits, and uſeful in the Conſervatory, and for its delicate Juice; and the White, which is but little inferiour to the Red. *Rasberrits.*

Alſo, I have ſeen formerly a *Rasberry* of a much darker colour than the Red, which was then termed the *Black-rasberry*, exceeding pleaſant in taſte.

There is a *Rasberry-tree* larger in Stalk and Leaves than any of the former, bearing a very large Bloſſome; but no Fruit comes to perfection of it in this Country.

SECT. X.

Of Medlars, Services, Cornelians, Mulberries, and Strawberries.

Medlars are a pleaſing Fruit, and in ſome caſes Medicinal; whereof there are ſeveral kinds. *Medlars.*

The Common Engliſh, being but ſmall, and the *Great Dutch-medlar*, which is much larger than the other, and is a good bearer.

Mr. *Ray* mentions a ſort that are without ſtones, which are a great curioſity.

And the *Neapolitan Medlar*, much like the former, without ſtones.

Services. *Services* are a Fruit more common than deſirable, therefore I ſhall onely name them.

Cornelians. The *Cornel-tree* beareth the Fruit commonly called the *Cornelian-cherry*, as well from the name of the Tree, as the *Cornelian-ſtone*, the colour whereof it ſomewhat repreſents. This Fruit is good in the Kitchin and Conſervatory.

Mulberries. The *Mulberry-tree* deſerves more room in our Engliſh Plantations, rather for the Leaf than the Fruit. Of *Mulberries* there are three ſorts:

The *Black* or *Red-mulberry* is known to moſt; the *White-mulberry* is ſmaller in the Tree and Fruit; the *Virginian-mulberry* is quicker of growth than the former, and its Fruit larger, and as pleaſant. Theſe Fruits are not to be ſlighted in the Kitchin and Conſervatory, nor for their Juice.

Strawberries. Although the *Strawberry* grows not on a Tree, and therefore cannot be eſteemed an Orchard-fruit, yet they deſerve a place under them, being humble, and content with the ſhades and droppings of your more

more lofty Trees, and furniſh your Table with variety of early and delicate Fruit, in ſeveral kinds, *viz.*

The *Common Engliſh-ſtrawberry*, well known to all, and much improved by tranſplanting them from the Woods to the Garden.

The *White-ſtrawberry*, more delicate than the former.

The *Long Red-ſtrawberry*, not altogether ſo good as the former.

The *Polonian* or *Great Strawberry* is the largeſt of all *Strawberries*, and very pleaſant.

The *Rasberry*, or *Green-ſtrawberry*, is the ſweeteſt of all *Strawberries*, and lateſt ripe.

But the beſt of all *Strawberries*, is that kind lately brought out of *New-England*, where, and throughout the *American* coaſt, they grow in great plenty, and are propagated here in *England*. They are the moſt early of all Engliſh-fruits, ſeveral years being ripe the firſt week in *May*, and continue bearing plentifully until Midſummer, unleſs drought prevent them. They are the faireſt (except the *Polonian*) and of the beſt Scarlet dye of any Fruit that grows, and very pleaſant and cool to the taſte

taſte. The whole Nation is obliged to the Induſtry of the Ingenious Mr. *George Rickets*, Gardner at *Hogſdon*, who can furniſh any one with them: The ſame Mr. *Rickets* and Mr. *Richard Ball* of *Brainford* can alſo furniſh any Planter with moſt, or all of the choiceſt and moſt excellent of all the Fruit-trees mentioned in this precedent *Corollary*.

An

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